



THE

AMERICAN

ESTABLISHED

1819

FARMER

NINTH SERIES.

BALTIMORE, MD., AUGUST 15, 1884.

VOL. III.—No. 16.

The Royal Agricultural Show in England.

Messrs. Editors American Farmer:

I know you and your readers would be pleased to hear of the great Agricultural Show held annually in England, and this year in particular in Shrewsbury, and venture, though not quite up to the form of reporting, to give you my impressions together with some statistics, which it is needless to say I obtained from another party.

The show, as all farmers know, brings together the best of the whole United Kingdom in the way of cattle and sheep, and the agricultural implements of course are American.

One year here is very like another, and perfection in detail is chiefly characteristic. The town is gay with decorations and battlemented arches, and the whole way from the station to the show yard is festooned with bunting and flags, and all manner of beautiful decorations. This show is for the whole nation what the Oriole is to Baltimore.

The show grounds are about one mile from the station, and you cross on your way the river Severn by means of a pontoon bridge, begun on Friday and finished on Saturday by a body of Royal Engineers, sent expressly to facilitate the public by this short cut. A curious feature was a sermon preached on Sunday by the Bishop of Litchfield to about 1000 herdsmen, cattle men and visitors in a large tent, from the text "How much better is a man than a sheep," and the stillness that prevailed for over one hour testified most amply to the interest felt by, and the understanding of, such a large congregation, and one, too, made of such heterogeneous material.

The space required covers 72 acres; the number of entries, horses, cattle, sheep and pigs is 1687. The prizes given by the Society, breeders, other associations, and individuals, large landed proprietors and others, amount to nearly \$35,000. Think of this, ye agriculturists. There are 343 individual exhibitors of machinery; chiefly of course, American machines, and a most wonderful display it is. There has been nothing at home to equal such an exhibition of everything a farmer could or would possibly use and these people, slow as they are, as compared to ourselves in most things, grasp at anything they see is good, and give some prizes to "encourage the others."

The town is full, no place to sleep. I myself am quartered at Stafford, 40 miles away, but easily reach the show by a fast train each day in 50 minutes. I find lots of farmers going to and from the show, and get into conversation with them on each trip. We have many arguments for and against our country, but always in the pleasantest way, and I find them to be secret admirers, though openly they cling to their old prejudices, and why shouldnt they? when you reflect that many of them have worked, lived and will die upon the same farm, and in the same farmhouse that their ancestors occupied for 500 years. Of course their system and ours are in no way similar; climate arranges all that, and their love for their homes and modes after so many years is scarcely to be wondered at. Like all who

pursue the noble calling of husbandmen, some are up and some are down, *most are down*; but we have just such proportions at home, and do not our people cry out against the competition from the west and northwest just as vehemently as these people protest against the increased advantages our own land has over theirs. So I quietly forgive them and change the conversation. I fear my "remarks" are hardly what your readers will care for, and so skip to an account of the show.

Situated distant only about one mile from the old semi-Welsh town of Shrewsbury in Shropshire is the race course, and upon this spot with additions the great show was planted. The grounds were full all the time, though not crowded. 15,000 people paid 2s. 6d. or about 63¢ cents per head upon this day. The system, order and regularity were simply wonderful. The visitor, let him be ever so curious or inquisitive, could see everything and yet feel that he had elbow room. The machinery I need hardly review, except to say that there were many implements there of no use whatever in our land, and some that were useless here, a not unusual feature in agricultural shows. The farm wagons, country carriages, seeds, dairy and ornamental displays, were by no means inappropriate to our land, and with our advanced civilization, and yet far ahead of anything we could exhibit. At last he comes to the cattle, I hear a reader say, alas, I fear I shall disappoint him. Of course it must be remembered that this show is in the very heart of the sheep and cattle country, and the display of Herefords and Shropshires, as they exceeded in numbers, should have excelled, as it was upon their own "dung hills." I am free to admit that I have seen as good Herefords from John Merryman's Hayfield herd, and as good Shropshires from both Col. Lloyd's and Dr. De Courcy's flocks, as anything I saw at Shrewsbury. 'Tis true, the cattle was better cared for in the stalls; the stalls were more roomy, better opened to the public in not standing in two rows, head to head, and had such attractive features as ribbons and plaits and colors; it is also true that the sheep were "penned" in more attractive shape, were evenly "clipped," and colored to have an even surface where hollows or bumps might be seen; in fact, the "art of exhibiting" was clearly demonstrated, but no better stock did I see, and in the case of the sheep not of such excellent mutton and wool qualities as I have seen at home. The Shorthorn exhibit, though demonstrating the finest blood in England was confessed to be poor. The Jerseys were very inferior, the grades hardly worth mentioning. The Red Polled cattle were few but beautiful, small though; and to my mind, way behind Mr. Whitridge's Black Polled cattle in size, quality and general appearance. I say nothing as to the future of the horned or no-horned cattle; let each owner and breeder fight his own battle. But the horses! Ah, there is where they get us; such animals I have never seen, from the enormous Shire or Clydesdale to the tiny Welsh pony.

The order, system and regularity with which each class was collected, put in a "collecting ring," and then paraded in the large ring, first at a walk, then at a trot or gallop, in a narrower circle than we use, and one more easily enjoyed by the spectators was especially commendable. The light drafts, hunters and hacks were a sight to gladden one's eyes, and make a most pleasant spectacle finely fixed in one's memory. Class after class paraded each day, so that even the late comers had a chance to observe and learn. The sides of the ring were crowded five and six deep, and each class with its 1st, 2d and "highly commended," was freely, fully and intelligently commented upon. It was a most wonderful sight, and I heartily wished for many I knew at home, who were as well "up to" what they saw as were those who were around me, to be present and enjoy the sight. The weather was all that could be wished for, and slowly I wended my way from the show with, I confess, a greedy wish and desire that I or others, at home could possess many a beautiful object I saw.

BALTIMORE COUNTY.

Shrewsbury, Shropshire, Eng., July 16, '84.

I enclose you here a printed account of a silo. I don't know whether or not any of our people have seen or heard of one of such a character.

"Among the other features of the show we should state that the French silo system is shown by what is termed a "paddock silo," which is exhibited by Messrs. Lascelles, of London, and which is said to be similar to that adopted by Viscount Obzelle. This consists of a wooden framework, which is first erected, and to this are screwed slabs of concrete, made of furnace slag, and impervious to damp. The joints of the slabs are filled with felt, so as to make it as airtight as possible. The silo was completed about three weeks ago, and filled with freshly-cut green fodder. We may say that the framework of the silo rests on the ground, and is about 12ft. high; it is therefore obvious that there would be an advantage in sinking it about 3ft. in the ground (and we understand this is usually done), as there would not be so much labor expended in pitching the grass from the wagon into the silo. About 6in. of sand was spread evenly at the bottom of the silo, levelled and trodden down by the men. Any ordinary earth would answer as well. The grass having been drawn alongside it was pitched in by the men, one man being employed inside levelling the grass. The proceedings of filling being completed, a thick layer of sand or earth was placed on the top, and then the whole was covered by a novel sliding roof, and left until the show. It is intended to open the silo during the week. One of the notable features of this special experiment will be that all expensive mechanical contrivances for producing pressure are avoided, and that the only means of compression used is that of putting a good depth of earth on the top, which any farmer in any place can supply for the simple expense of shoveling and levelling."

Agricultural Matters in France.

CROPS AND WEATHER.—In the south of France the harvest is all but terminated, and operations are rapidly extending northward. The yield is excellent as regards wheat; the ears are well filled; the straw is short; perhaps over the whole of the country the returns will exceed a good average. Then the quality is largely counted on. The intense heat has largely contributed to hasten the ripening of the grain earlier than usual. The rye crop has in several regions been laid; this is very unfortunate, as it is generally rye straw that is employed as bands for the sheaves. Wire and cord are not in favor; they get awkward, at threshing time occasionally. Oats and barley have suffered from the drought, and more severely where the sowings have been made in the spring. In mountainous districts, or humid regions, close to the sea shore, this drawback has not been experienced; on the other hand, maize promises to be a splendid crop; the same observations apply to the cultivation of rape for oil.

The dry weather is telling on root crops; potato tubers are small and not numerous; turnips are scarce. All fodder will be short, save where the land has not been exposed to the scorching heats. Vineyards are most promising, and despite the sinister rumors circulated in spring as to the effects of frosts, the vintage will be good in quality as well as quantity.

THE VARIOUS REGIONAL AGRICULTURAL SHOWS, about sixteen, come off annually, under the auspices of the government, have been held. The results are considered as satisfactory, both as regards stock and products. Perhaps some reserve must be made under the head of instruments. Since the prize list for agricultural implements has been growing small by degrees and beautifully less, manufacturers find but little inducement to exhibit, and none for new inventions. The innovation of awarding premiums to the best cultivated small farms and gardens, has worked well. The only point to be deplored, connected with these government departmental shows is the inroads made by industries, that only the most charitable stretching of imagination can connect either with the science or practice of agriculture. An agricultural show ought to have distinct features from a local fair.

PASTEUR'S DISCOVERIES.—There was no doubt as to the efficacy of the Pasteur discovery, of vaccination of stock against the *charbon* disease. Experiments widely conducted on oxen, sheep and pigs, confirmed the value of vaccination as a preservative. But one point remained to be determined; how long did the efficacy of the vaccination last; it was no more permanent in the case of stock, than of small pox with human beings. Roughly, its preservative action was set down at six months. To test the point, the agricultural society of Herault experimented on three races of sheep peculiar to the south of France, of which one, the Larzac, yields the milk from which the famous Roquefort cheese is prepared. Thirty six sheep were set apart for experiment, and were installed at

the agricultural college of Montpellier. This was in May, 1883. In May, 1883, six sheep, chosen two by two, from the several breeds, were inoculated with the poisoned virus and resisted its action. In the following November the experiment was tried on another lot of six; same result, immunity. After the lapse of another six months, that is in May, 1884, six more animals were similarly treated, and with equally satisfactory results, whilst sheep that had not been vaccinated succumbed. Hence sheep vaccinated in 1883, resisted the virulent virus in May, 1884; that is to say, the immunity was assured for two years.

FARM-YARD MANURE.—Professor Helden of Pommoriz, has devoted considerable attention to this subject. He draws attention to the fact, that while the employment of artificial manures annually augments, while amelioration takes place in the races of cattle, that food has become more concentrated for stock, and farm offices have been improved in construction, but little proportionate attention has been given to the conservation of farm yard manure, or to its treatment. In some out buildings the manure is only removed every week, or every month; sometimes less frequently. The manure is better carted directly to the field, or placed in a heap. The Professor inclines to view that the best manure is made by leaving the litter unchanged as long as possible, but on condition, that the urine or liquid manure be carefully economized.

Farm-yard manure when neglected, loses the greater part of its soluble matters, which are the most precious, and at the same time a notable proportion of nitrogen under the form of carbonate of ammonia. Farm-yard manure consists of excrements, urine, and litter. Urine decomposes the most rapidly: when fresh, the nitrogen exists under the form of urea and hippuric acid; there exists also, a small quantity in the ammonia and in the coloring principles of the urine. By the simple absorption of water, the urea is rapidly changed into carbonate of ammonia. The hippuric acid is not slow either in decomposing; urine collected after a space of two days, contains none; and in that time it loses about fifty per cent. of its nitrogen.

Having a well constructed liquid manure tank, the Professor urges the employment also of gypsum or kainit, and the form in which gypsum ought to be used is, as it comes as refuse in the fabrication of superphosphates and phosphates, that is to say, when coprolites are reduced to powder, acted upon by sulphuric acid, and a solution of lime. Now two per cent. of this gypsum will fix the volatile carbonate of ammonia. From one to three pounds, per head of stock per day, will suffice. Small farmers however, ought to take care, and not have their shed too warm, as that would, from a diminution of oxygen in that atmosphere, induce the formation of sulphuret of calcium, which generating sulphuretted hydrogen gases, would create a bad odor.

DESTROYING FIELD MICE.—In the neighborhood of Rouen, sulphuret of carbon is successfully employed to destroy field mice. A vessel capable of containing five quarts of the liquid, that which is employed also against the phylloxera, has a cock, with a protruding pipe arrangement: the latter is placed at the mouth of the mice-holes, and a simple turn of the cock empties a measured dose of the poison.

THE SUGAR INDUSTRY question is still being debated in the legislature. It is very complicated, as it is mixed up with the demands of colonial growers for protection, and of refiners for drawbacks. For the future, however, the vexed question of levying the duty will henceforth be on the roots, as in Germany, and not on the sugar-richness. A commission has been nominated to visit Germany and ascertain to what causes are due her superiority in the production of beet root.

Briefly, this may be ascribed to German farmers cultivating the root exclusively for its sugar; having small returns; to scientific processes on the part of fabricants being more perfected, and to great care in the selection of seeds and manures.

WHEAT FROM INDIA.—A good deal of wheat is now being imported from India, and more will certainly arrive as the tolls of Suez Canal are reduced. There is another product that might be studied, that of forage. This is generally insufficient in France, and there is ever a brisk demand for good hay. Half a century ago India exported compressed hay to France.

Shocking Wheat.

Mesrs. Editors American Farmer:

We, in Southern Maryland, who grow largely of corn and tobacco, have sometimes to leave our wheat in the field a month or two after it is harvested. If we bound into sheaves and set it up in dozens, in such a rainy and stormy season as the present has proved to be, I imagine the wheat would all be wet and damaged. Most of our people put their wheat up differently; after cutting it with a reaper, it is picked up unbound, and shocked in shock from six to eight feet in diameter; the heads are pressed close together, and about a dozen armfulls left around the shock; then two experienced hands come along with an arm full of tobacco sticks, one of which is run partly down in the middle of the shock and answers in place of a stack pole; with the dozen armfulls left at each shock, a sharp pointed little stack is built up around these tobacco sticks, fully protecting the great mass of the heads of the former shock, and when brought to a sharp point a cap is put over the shock, and the tobacco stick through the cap. Put up in this way, my own wheat has remained uninjured in the field for six or seven weeks, although we have had floods of rain, and sometimes winds resembling a western cyclone. Of course, it is always wise to stack or house or thresh earlier than I have done, if one can. I merely relate our people's method, thinking it might interest some of your readers.

A FARMER.
Calvert Co., Md., August 6th, 1884.

Time and Method of Applying Manures and Fertilizers.

By B. PURYEAR, LL. D., Professor of Chemistry in Richmond College.

We believe that farmers are constantly sustaining heavy losses from the bad management of fertilizing material. Our domestic manures, the excrements of animals, are frequently exposed month after month to the action of sun and rain; no processes, either mechanical or chemical, are taken to prevent the escape of ammonia, or the carrying off in solution of the soluble constituents of the manure. In the construction of farm yards, care should be taken that the roofs of the buildings turn the water from, and not into the farm yard. Then, if the farm yard be level, or slightly basin shaped, there will seldom be an overflow of water. When, however, this does occur, it may be made, by easy contrivance, to flow into a water-tight tank, which should always contain absorbents in abundance. The contents of the tank may be hauled off, at suitable intervals, to the field, or thrown back upon the manure pile, as circumstances may suggest. Thus nothing is lost; the saving accomplished will soon repay the trouble and expense incurred.

The blackish water which has percolated through a manure pile, and flows off upon the surface, is charged, to saturation, with the soluble constituents of the manure. When we recall the fact that no solid, as a solid, can get into the circulation; so that all solids, to be available, must first be dissolved by water, we see at once that in this waste

of liquid manure, we are losing all those constituents that make manure valuable.

In saving animal manure, the admixture with it of vegetable matter and earth is always advisable. The fertilizing material is thus absorbed and retained, and the vegetation rots more thoroughly and promptly from its contact with animal matter.

The sprinkling of gypsum—calcium sulphate—over manure heaps and in the stalls of horses and cattle, is also advisable. The escape of the gas, ammonia, which is but little more than half as heavy as the atmosphere, and therefore is liable to rise into the air, is prevented by the formation of the sulphate of ammonia, which is solid, and therefore cannot escape in this way.

We believe, however, that animals' excrements should be hauled off as promptly as possible to the field, and turned under. Then all the chemical changes take place in the soil, which holds and assimilates the products of chemical action. We will give a single illustration of this remark: Ammonia, the form in which plants obtain their nitrogen chiefly—it being a compound of nitrogen and hydrogen—is always a product of the decomposition of putrescent manures. When formed in the soil, ammonia can never escape; its wonderful absorptivity by water is the explanation. Water absorbs seven hundred times its volume of the gas, so that as fast as the gas is formed, the moisture of the soil absorbs and holds it for the use of growing vegetation.

We believe that, as a general rule, the best method of applying manure is to broadcast it. The argument that manure should be applied just where it is most accessible by the roots, is, in the main, fallacious; in the case of plants, as Irish potatoes, which must make very quickly, and whose roots do not ramify extensively through the soil, it may be best, particularly if the supply of manure is scant, to put it where it is most accessible, and most ready for immediate use. But for wheat, corn, tobacco and for all plants where we can fertilize heavily, broadcasting is the proper method.

Let us see: Tobacco, say, is fertilized in the hill; the plants are successfully set and are growing rapidly; the prospect for a large crop is highly flattering; everything that the plant needs is about and among its roots, and with favorable seasons, the growth is rapid; but let a little drought come—how quickly the plants show that they cannot contend with the situation; the prospect so flattering awhile ago vanishes at once—why is this so? Plants, like animals, accommodate themselves to their environment. The plants, when set, found everything necessary for rapid growth abundantly about their roots; why should the roots spread out and strike down in quest of food, when without doing so they can get it abundantly? Like fast young men, like riotous livers, they have abundance at present, and reck not the day of coming trial. When, therefore, the crop is pinched by a little drought, it gives way at once; the roots are superficial, and confined also to smaller area; water does not fail to dissolve the fertilizer freely, and the plants not having made provision for getting supplies from a larger area and from greater depths, succumb at once. They have been pampered, and are unprepared to make a vigorous effort for life.

On the other hand, if the same amount of fertilizing material had been applied broadcast, and so had become thoroughly intermixed with, and assimilated, by the soil, the growth would have been more gradual, more healthful and better sustained; the plants would have had to root for their food, and would have rooted more extensively and more deeply; they would have had more and stronger means of obtaining food, and that, too, from depths and localities unvisited, in the former case, by their roots. What we have said about tobacco applies with equal

force to corn, wheat, cotton and other staple crops.

Again, the inadvisability of applying manure in the drill or hill may be illustrated in another way. If the supply is inadequate for the full demand of the plant, the result, even with good seasons, may be disastrous, for another reason. Let us again take tobacco to illustrate our point: the plants grow off promptly and rapidly, they are vigorous and strong; they feed upon and consume rapidly, the food placed immediately about their roots; but when this supply gives out, as is not unfrequently the case, before the maturity of the plant, then the plant is well nigh helpless; with an artificial supply of food placed right at hand, it has neglected to send out many roots, or any very deeply; this artificial supply failing, the plant is unprepared to get food from the soil at large. At best, at the very best, its growth must be checked while it is endeavoring to accommodate itself to the new situation. The easy and abundant source from which it has been drawing its food is exhausted; what now shall it do? It will either fail to meet the emergency, or at best, must be checked and injured in its growth and development, while it is seeking to change its tactics, and adjust itself to altered conditions.

We believe, also, that it is best to apply manures, whether putrescent or commercial, for spring or summer crops, in the preceding fall; let it have time for perfect assimilation by the soil, for the completion of the chemical changes that will occur upon its admixture with the soil.

Some fear that it will get out into the air; that it will be dissolved by the rains and carried away to the creeks and rivers. Not so; the earth is not constructed in so bungling a way; we may not so impeach the wisdom of the Supreme Architect; it is only when rains are excessive, and are more than sufficient to saturate the soil, that any runs off; but the rain that runs off is the surface rain that has not percolated through the soil, and therefore carries off but very slightly the soluble constituents of the soil; it has not struck through the soil; it has had no chance to dissolve, except to a small extent, the soluble constituents of the soil, for, confined to the surface, it has come in contact with them only to a very slight extent. Besides, who knows but that the soil, by a law of its own, unknown to existing science, may have the power of holding with special grip and tenacity, whatever is necessary to its own constitution? Such is the belief, at least, of a farmer who was talking with me a few days ago—a man of large experience and successful practice, distinguished by the accuracy of his observations, and the general correctness of his inductions.

Rearing Silk Worms.

The *Kansas Industrialist* says:—"The worms thrive on Osage Orange leaves nearly or quite as well as if they be fed on the White Mulberry. The eggs should be kept in a cool place—a cellar is good—until the young hedge leaves start; when, if they are brought into the temperature of an ordinary living room, the larva will soon appear. They are not inclined to travel, and may be kept on a pasteboard box lid, or even on a newspaper, from the time they come out small black worms, until they are two and one-half inches long, and are ready to open their cocoons. Lest refuse from their feeding should become mouldy and therefore damp, the worms must be placed upon new and clean paper. The young larva are extremely tender, and must be handled with the utmost care. They can, however, be successfully transferred by letting them become quite hungry, and supplying them with good, fresh leaves on the young branches; the worms will crawl upon these, and may be readily transferred. In no case should wet leaves be fed, whether from dew or rain; all drops of water should be shaken off the leaves."

Live Stock and Dairy.

A Practical Breeder's Opinion of Consanguineous Matings, etc.

Meers. Editors American Farmer:

Glancing over your late issue, I notice the advertisement of Major W. W. Bentley's sale of Shorthorns and Southdown and Oxford sheep. I have received from Major Bentley a private letter not intended for publication, from which, however, I take the liberty of sending you an extract, setting forth the writer's views on a very important question, viz., the effects of in-and-in breeding. Major Bentley writes as follows: "Hogarth, the bull now at the head of my herd is, as you know, very closely inbred, yet he has unquestionably eclipsed every shorthorn ever seen in Virginia as a show animal, and has proven himself a superb sire; and here let me say that the more actual experience I have in breeding, the more clearly I am convinced of the correctness of your views on the question of inbreeding, viz., that no defects in constitution or form are ever produced by inbreeding, *per se*, but it exaggerates and increases existing predisposition and character, both desirable and undesirable. There can be no good breeding, no perpetuation of good and desirable qualities, no improvement, without more or less of this inbreeding so condemned by certain writers."

I desire to place on record this opinion of one so well qualified to speak upon a subject so much discussed, and having bearings so wide and so important; the more so, because Major Bentley does not give himself time to write much for the public press, and is pre-eminently what is called a practical man.

I, myself, suggested to him the cross which produced Hogarth, and having at that time control of the inbred Renick Rose of Sharon bull Raleigh, the sire of Hogarth, I offered him the means of carrying it into effect. He then expressed some doubts as to the breeding being too close, but carried it out nevertheless. It was precisely because the cross united similarly bred animals that I recommended it, knowing, as I did, that both animals were in all respects sound and of the very highest quality. I found them in Major Bentley's herd two Illustrious cows bred by Abram Renick, and two Young Marys bred by Van Meter, and two Josephines bred, I think, by the late Alex. Matthews of Wytheville. Upon these cows the celebrated Renick Rose of Sharon bull Joe Johnston had been largely used, as well as his inbred son Raleigh, out of Rosebud 8th; the bull above named is sire of Hogarth, and Major Bentley's own bull Illustrious Airdrie, bred by Mr. Renick. In breeding the Illustrious family, Mr. Renick used precisely the same bulls as he used upon his world-famous Rose of Sharons, and they are practically identical in blood for from five to seven or more crosses. For this very reason I urged the breeding of Illustrious 5th to Raleigh, and I was not in the least surprised to find in Hogarth, when I judged him in his two year old form in the show ring at Richmond, the most finished Shorthorn I had ever seen.

This animal represents the combination of the best results of Abram Renick's phenomenal skill as a breeder. I do not know whether he will be offered at the sale or not, but he can be seen there by all who attend, and I recommend him to the notice of all admirers of this grand breed of cattle. Having disclosed this much of the breeding of Major Bentley's cattle without consulting his wishes, I ought to add that it is within my knowledge that he has never had a barren cow in his herd, for the information of those of my readers who may be on the look out for such a result from close breeding. All the facts I have now given can be verified by addressing Major Bentley, whose

sale is advertised and address given in your journal.

Major Bentley is a graduate of the Virginia Military Institute at Lexington, a scientific school of the first rank, and the value of such training is illustrated in his exceptional success in a business so thoroughly scientific as the breeding of improved live stock. I believe it is true, that no breeder in this country has had greater success in the showing for an equal number of animals bred and exhibited. For such reason his opinion upon the great question of the results of consanguineous intercrossing is of substantial value, and I desire to place it on record, not merely because it is confirmatory of my own position. The foundations of Major Bentley's herd were laid in the best blood, as combined by such notable shorthorn authorities as Alex. Matthews, Abram Renick and Ben Van Meter. His Southdowns were select specimens from the renowned flocks of Lord Walsingham and Jonas Webb. His Oxfordshiredown sheep from the flock of Mr. Druce. The animals bred by Major Bentley from these foundations are in all respects equal to the originals, and I take this opportunity to say to such of my readers as may attach any value to my opinion, that they have an exceptional opportunity to purchase some of the best bred animals in this country, and of the highest individual excellence, at the sale advertised in this issue of your journal.

M. G. ELLZEY, M. D.

Some Necessary Precautions in Sheep Raising—Brown Sedge.

Meers. Editors American Farmer:

Most domestic animals are endowed with certain natural instincts which enable them to shun poisonous plants. Sheep are an exception to the rule. They seem to have but little or none of this kind of instinct, and are liable to eat and be killed by many of the poisonous plants that grow on our soils. They will eat Jamestown weed, May weed, ivy, mushrooms, and even tobacco. In view of this fact it is necessary that precautions should be taken to prevent their access to these plants as far as possible. Ordinarily when supplied with good pasture, there is not much danger of their eating them, but when pasture becomes scarce or when the ground is covered with snow, sheep will eat readily some of these poisonous plants.

The ivy is an evergreen, and in winter when green herbage is scarce, or when the ground is covered with snow, it is very tempting to the poor hungry sheep. It is a deadly poison, and if sheep happen to eat it, it is almost certain to kill them, unless speedily relieved. Hog's lard is the remedy, and an antidote for this poisonous plant, as it is also for tobacco.

To show the wonderful efficacy of hog's lard as an antidote for these poisonous plants, I would relate an incident in my own experience. When a boy living with my parents I was sent out one morning whilst the ground was covered with snow to see about the sheep. They were found near the ivy cliff, with about a dozen of them stretched out on the ground almost dead. I returned immediately to the house, where I provided myself with some hog's lard, and a chunk of fire, with an assistant, and returning to where the sheep were, we drenched them well with the melted lard, and then left them to their fate.

On returning to the place the next morning all the poisoned sheep were found up and well. I have relieved them in the same way when poisoned by tobacco.

Mushrooms will also kill sheep. They grow almost exclusively on forest land, and during wet spells they spring up in great numbers. Sheep are very fond of them, and they will eat them ravenously. I was not aware of this fact until a few years ago, and

if the reader please, I will relate how I made the discovery. About this time my sheep commenced dying and I lost several. On turning them out one morning into a woods pasture, I observed them running about in every direction and once in awhile stopping to eat something, which I found to be the mushroom. It occurred to me at once that it was this mushroom that was killing the sheep. I immediately took them from this woods pasture and did not lose one of them afterwards. I have been careful ever since to keep them from running in the woods during wet spells. I tried hog's lard in these cases also, but it failed to give relief, and all died that were taken sick.

Acorns will also kill sheep, not, however, because they are poisonous, but because the hulls are so tough and indigestible that they clog up in the stomach and produce costiveness and colic. I made a *post mortem* examination of one of these cases, and found the stomach perfectly blocked up by these indigestible hulls. Acorns will sometimes kill cows in the same way. Indeed, all ruminating animals are liable to be killed by acorns, and it is dangerous to let them run in the woods during acorn season. The acorns are swallowed without mastication, and when the animal attempts to throw them back into the mouth for mastication, they are sometimes unable to do it, and constipation and colic ensue in consequence.

"An ounce of prevention is worth a pound of cure," and it is a great deal better to keep out of harm's way than to get out when once in. A little timely precaution and care on the part of the stock and sheep raiser will save him much loss and trouble. Although sheep can be raised with less cost and trouble than any other animal, it is a great mistake to suppose that they can be made profitable *without any*. They require a great deal of attention and care, though but little labor or cost. As a rule nothing prospers much without labor and attention, and sheep husbandry affords no exception to the rule, and when these are liberally and faithfully bestowed nothing pays better on the farm than sheep.

In this connection I will venture to call the attention of Eastern Virginia farmers to the great value and importance of the broom sedge grass. In the olden times this grass was regarded as a great pest, and one of the most interesting questions with the farmers of that day was how to get rid of it.

But really it is a good thing, and is one of those blessings which a benificent Providence has provided to counteract the improvidence of man as well as to repair the "wear and tear" of the elements upon the earth's surface. It springs up readily upon the poorest soils here, and soon forms a sod to stop the washings of the soil, and at the same time furnishing excellent pasture for stock. It is a healthy and nutritious grass, causing the cow to yield rich milk and yellow butter, and it is particularly efficacious in keeping sheep in a thrifty and healthy condition.

The cultivated grasses can not be made to grow on these impoverished soils without a considerable expenditure in seed and manure, but this grass comes voluntarily to meet our peculiar necessities "without money and price." It is said that this is no grass country, and yet here is a native grass that springs up without seeding or any preparation of the soil, on the poorest land—where it is most needed—and grows with a luxuriance almost approaching the marvelous. A stranger coming here at this season of the year will be astonished to find these cheap lands covered with a luxuriant growth of grass from six to twelve inches high. There are large quantities of such land in market here which may be bought at from \$3 to \$5 per acre, and which are capable of supporting millions of sheep and cattle. But the broom sedge grass in its effort to possess the land

has to encounter a formidable rival in the old field pine, and without the aid of the woodman's ax it is hardly equal to the contest. In order to secure a good growth of grass the pines must be kept under. Where the pines are not very thick the grass will grow more or less, but growing in the shade as it must necessarily do, amongst the pines, its value for grazing is very much diminished. All plants grown in the shade are more or less acid and watery, and stock will not eat it when they can get that grown in the sun. This grass, in its advanced stages of growth, however, becomes tough and hard, and is not then much relished by stock. It is only whilst young and tender that they delight in it. In order to get an early and tender bite of this grass in the spring, the old grass should be burned off, and the proper time for this is about the first of March.

In conclusion allow me to suggest to the owners of these old field lands, that they may be made to yield a handsome income by putting sheep on them. At present they are not merely yielding no income at all, but the money invested in them is dead capital, subject to high rates of taxation. But it is urged by some, it is too expensive keeping up the necessary fencing. But fencing here is not so expensive. Timber is generally plentiful and rails can be gotten for fifty cents per hundred, and fifteen or twenty cents per panel will cover the whole cost of an ordinary rail fence.

The greatest enemies of the sheep, however, are the dogs and the sheep stealers. As shown in a former article upon the subject, these drawbacks may be overcome by penning them near the homestead at night and putting bells on a few of them.

Cumberland Co., Va. WM. HOLMAN.

Scours in Calves.

Every season there is a good deal of complaint about scours in calves, and information is called for to know how to treat the affection. The best treatment consists in removing the cause, or causes, that produce it, the chief of which is indigestion. Calves which run with their dams, or which are fed new and warm milk, are seldom if ever troubled with scouring. It is when they are fed upon skim-milk—sour or sweet—or whey, or other food not natural to the young bovine—food good enough, perhaps, in quality, but given too cold—that this complaint mostly occurs.

The stomachs of no young animals will endure much chilling without creating serious disturbance, nor is chilling good for the stomachs of older ones. The stomachs of young ruminants are not only not as well fortified against the effects of cold foods as adults of that class, they are not even as well prepared to bear up against chilling as the stomachs of non-ruminants. In adult ruminants, the paunch, or rumen—the first and largest division of their huge compound stomachs—receives nearly all the cold foods, and drinks taken in by them. After being warmed up in this department and softened and remasticated, its contents go to the other division, which, always receiving them warm, never become accustomed to taking in cold materials. This is especially true with respect to the fourth division, or true stomach, it being necessary for the food to pass through all the others before reaching it, as it is the last division in the series. In the young ruminant, this fourth, or last division, is the only active part of its stomach. The other divisions, especially the paunch, exists in a somewhat rudimentary condition, and are, at first, inferior in size, and useless, and only come into activity by slowly developing, as life advances.

Cold food given to a young ruminant must, therefore, go where cold food was never intended to go—into a receptacle designed by Nature for the reception of warm material only. To force them to take cold

food before the other divisions are developed enough to at least share in the labor of warming it up, is to war against Nature, which always demands a penalty for the infraction of her regulations, and the young ruminant pays it.—*Nat. Live-Stock Jour.*

How to Keep June Butter for Winter Use.

It is a fact well conceded by all good judges of butter, that butter made in June is better flavored than that made in any of the eleven other months. It is, therefore, very important that every one should know how to keep the June product for winter use. Here is one way:—Pack the butter solidly in stone crocks to within an inch of the top, level it, and cut a piece of muslin and spread it over the top; then fill to the top with common salt. Dig a hole in the ground on the north of some building, or in the shade of some tree, or if this is inconvenient, the garden will do; let it be deep enough, so that when the crock is covered, the earth on top of it will not be less than eighteen inches thick. In this hole place the crock; over it put something that will turn off the water if any leaches down to it. An old tin pan turned over makes a good cover. Pack on the earth, leaving it rounding, like an ant hill, to carry off the surface water. If this work is done in the garden, plant over the top a tomato vine, or a few beans, or anything to shade and keep away the torrid rays of the sun. The work is then finished, until one wishes to take out the butter any time before severe frost. This method I will warrant to keep butter perfectly sweet until winter, if proper care is taken. An old acquaintance of mine tells me he has practiced this plan for years, and when he lived on the farm he used to take up his butter in November, and sell it for forty cents per pound, whereas, if it had been disposed of when made, he could not have realized more than fifteen cents. This is also a good way to keep canned fruit during the summer, if one has not a proper place for the purpose. Put the cans in a box and bury it as the above, if canned in glass.

Another method is to pack the butter as before; then take a good sweet barrel (a pork barrel will be as good as anything if sweet), in it place the crocks as closely as possible, (small crocks will pack better than large ones), placing one on the top of the other until the barrel is nearly full; then make as strong a brine as salt will make; scald it, so as to skim off all impurities; when cold, fill up the barrel. If the head can be put in, and the brine turned through a hole in the head, all the better. Let it stand in the cellar or in any cool place until wanted, and take out one crock at a time as it is needed. This is a little more expensive way, but it answers every purpose. The brine will not salt the butter.—*Rural New Yorker.*

Poultry Yard.

Concerning Poultry Disease.

CAUSES.—With some things in life the effect is so far from the cause that we are often driven to our wits' end to find the connecting link, but where poultry diseases are concerned, cause and effect are not far apart. When disease first appears among a flock of fowls the poultry-keeper ought to at once ascertain and remove the cause, for it is almost useless to doctor sick fowls if the conditions which produced the disease are kept undisturbed.

FILTH in some form or other is the prime cause of some of the worst ills that afflict chicken flesh, and it surely aggravates all poultry diseases. This filth may be in the air, or it may be in the food and drink, but wherever it is, or in whatever form taken into the system, it will surely cause disease.

DAMPNESS is another direct cause of disease. It does not hurt fowls to run about in

the rain, provided they have a dry house to go to when they get tired of paddling about in the wet, but it does hurt them to roost in a house that is always damp. The poultry-raiser who keeps fowls in damp houses must expect to fight roup, canker, colds, sore eyes, diphtheria, gout, rheumatism, consumption.

ROOSTING IN DRAUGHTS is also responsible for many of the ills enumerated above. Fowls that roost in the tree-tops right through the winter never take cold; it is the current of air that comes through some crack or crevice and strikes the fowls while on the roost that causes the mischief.

STRANGE FOWLS sometimes introduce disease into a healthy flock. The careless poultry-keeper buys a breeding cock, or perhaps a few hens, and at once turns them loose among his old stock; in a short time there is an outbreak of roup or cholera, and "nobody knows where it came from."

LACK OF VIGOR on the part of the breeding cocks, or hens, or both, is one great cause of taking off many chicks and young fowls.

lice often kills chicks outright, and while they may not actually kill older fowls, or even cause disease, it is quite certain that fowls whose vitality has been lowered by the loss of blood consequent upon the presence of lice in great numbers are the first victims to any poultry disease that comes along.

THE "OUNCE OF PREVENTION."—The ground location of a poultry-house must be well drained, either naturally or artificially, and the house itself must be well lighted, well ventilated, large enough to accommodate the desired number of fowls without crowding, warm in winter, cool in summer, and thoroughly clean at all times. The fowls are to be of healthy stock to begin with, and only the best kept over each year for next season's breeders. Fowls that are very much over or under size, those that seem "weakly like," and those that have recovered from an attack of roup, cholera, or any serious disease, should never be used as breeders. Let the food be fresh and wholesome and sufficient in quantity to keep the fowls in good condition. Under-feeding and over-feeding should alike be avoided. Shrunken grain may be used for poultry food, but musty and mouldy grain and sour meal should not be fed—especially in warm weather, and never unless it be well cooked. Keep pure water where the fowls can have access to it at all times, and the poultry house should never be without a supply of gravel, lime and charcoal. Fowls and chicks must be kept free from lice, but to accomplish this too severe remedies must not be used, especially upon chicks. Every year the old "lard, sulphur and coal oil" remedy for lice goes the rounds of the agricultural press, and it kills more chickens than it ever cured. When strange fowls are brought upon the premises, no matter if they come from the yards of some "noted breeder," keep them apart from the other fowls until you are sure they are all right. Do not dose your fowls with any of the preparations so extensively advertised to "keep fowls in good health." I speak from years of practical experience in caring for poultry when I say that fowls can be "kept in good health" from the time the chick leaves the shell until the grown fowl is "sent to pot" or to market, without administering one drop of medicine. Unless some contagious disease is present among the flock or in the immediate neighborhood, preventive medicines are worse than useless. Close attention to all the wants of the fowls, and also to the sanitary conditions of the house and yard, will do more toward preventing disease than all the poultry pills, powders, tonics, etc., in the universe.

THE "POUND OF CURE."—Long experience as the "family doctor" for all the poultry flocks in the neighborhood has convinced me it don't pay to fuss much with fowls that are really sick. In the *Prairie Farmer* of

July 5, T. D. B. says: "When a chicken is noticed to have anything wrong with it that we do not understand, it is immediately killed and buried very deep," and I can recommend his method as the quickest, safest, and surest way of doctoring sick fowls. As he says, you may kill chickens that would be all right in a few days, but the farmer or poultry-raiser who keeps fowls in large numbers can not afford to run the risk. When the disease is suspected or known to be roup or cholera, let the killing of the affected ones be followed by a thorough disinfection of the premises, and a daily use of disinfectants until several days after the disappearance of the last symptoms of disease.—*Prairie Farmer.*

Water for Fowls.

One of the most important things in feeding poultry, yet too often neglected, is a supply of good pure water. A fowl drinks the first thing in the morning and fifteen to twenty times during the day, especially in hot weather, and mismanagement in this particular may damage seriously the health of the whole flock. Impure water is one of the most common sources of disease; it carries all kinds of germs. Cholera, for instance, is in all probability often due to the drinking of water that has drained from the stable or cow yard; roup is often communicated through the tainting of the drinking vessel, and so on. Too cold water chills and prevents digestion, acting directly on the sensitive cavity of the crop; lukewarm water in summer is not relished and is altogether unrefreshing. Snow-water is said to reduce flesh rapidly as a sharp attack of diarrhea, though this assertion has been disputed. Hard water is disapproved of by some breeders; it seems to disagree with horses.

The best thing in summer is to have a stream of running water, if possible, from a pure source, flowing constantly through the henry. In winter it should be warmed, and with Wheeler's Drop Faucet there is no great difficulty in securing this. If the quality of the water is suspicious, boiling will often improve it, and where there is the slightest tendency to diarrhea or cholera it is advisable to boil it always. The water is a good medium for administering some tonics and stimulants and lime. A few rusty nails in the water vessel, or a few drops of the tincture of iron daily, or a bit of aasafotida fastened to it, are recommended.—*Poul. Yard.*

The Apiary.

How to Handle a "Queen."

To catch a queen the operator first puffs a little smoke into the entrance of the hive, waits a minute for the bees to fill themselves with honey, which smoke will cause them to do, and then carefully opens the hive. Being filled with honey, the bees are usually good natured, and will seldom sting unless pinched. A comb is carefully lifted out and each side closely scanned, and if the queen is not found, returned and another one removed. When the queen is found, she is carefully taken by the wings and put into the cage. Worker bees are then caught or caged in the same manner, it being impossible for them to sting when taken up by the wings. In warm weather, eight or ten workers are sufficient as an escort, but as cool fall weather approaches the number is increased until it sometimes reaches forty or fifty. The shipping of queens by mail has been reduced to so exact a science that they are not only sent across the continent, but across the Atlantic. At the time of the removal of a laying queen from a nucleus, or soon after, a matured queen cell or newly hatched queen is given to the nucleus, and the apiarist may be able, ten days later, to ship another laying queen from the same nucleus.—*Ex.*

Horticulture.

Horticultural "Fish" Stories.

The cause of true progress in Agriculture and Horticulture is frequently damaged by the extravagant claims of writers and speakers in regard to the great profits to be derived from the cultivation of certain crops. These writers and speakers hear of certain exceptionally great profits, and at once spread the statement abroad as the ordinary results to be obtained from the cultivation of these crops, thereby inducing men, ignorant of the first principles of Horticulture to invest their means in a business in which skill and experience are indispensable to success, and in which the most skillful seldom realize the fancy profits of which these writers talk so glibly. In this class I would place the address of Dr. J. W. Sanford quoted in your last No. Many of the statements contained in this address are so extravagant that I think it right to caution the inexperienced against placing too much faith in them. It is certainly true that in a favorable soil and location a skillful gardener can usually make fair returns for his labor and in time acquire competence and even wealth from a much smaller area than is usually required by the farm. But that a farmer without any previous experience in commercial Horticulture can suddenly take up a specialty in vegetables or fruits and make the profits named by Dr. S., or any profit at all, until he has paid for his experience, I do not believe. The Dr. starts out with a little ridicule of a man who had eighty acres of fruit land and yet only planted a half acre in red raspberries, while he might have gotten rich by planting half his land in this crop. But the man with the single crate of berries was right. He might have gotten rich by planting half his land in red raspberries, but in nine cases out of ten such a rash rushing into a specialty would have resulted in a sheriff's sale before the man learned how to grow and market his red raspberries to a profit. Then after ridiculing a man for not risking half his farm in an extremely perishable and uncertain crop, the Doctor winds up his address by warning his hearers against being "one crop" men, when the whole drift of his address is in favor of specialties. The man who cautiously plants a small area of any new crop until he learns just what he can do with it, even if he has to carry his crates on his shoulders to ship them, is a much wiser man and more certain of final success than the one who risks half his farm in a crop he has never grown before.

The great mischief which these recitals of great profits in horticultural specialties do is that they lead inexperienced men to suppose that these exceptional profits are the rule instead of being exceptions, even if many of them are not altogether apocryphal. For instance does any practical man believe that a poor man in Mass. really did make an income of \$5,000 per annum from the growth of dandelions on six acres of wet land simply by draining and digging and planting it. If such exceptional results were really obtained it was by covering the land with frames and sashes, a proceeding which no "poor" man could accomplish on six acres. So also of Mr. Bull's dandelion culture. He omits to state that the \$1.50 every month for four months from a space 3x6 feet was under a glass sash of that size. He says that this was at the rate of \$13,000 per acre, but does not state that an acre of land in frames involves the use of two more acres for alleys and road ways, so that it would really be \$4,333 per acre, and that to cover an acre with frames and glass would cost about \$7,500, while the cost of attention in winter, the breakage, etc., would make the culture in frames five times as expensive as in the open ground. That large profits can be and are made in gardening and fruit growing by men who have skill and experience in the business is true, but even with these the

large figures named by Dr. S. are seldom realized, while nine out of ten inexperienced men would utterly fail to make any profit at all. Dr. S. mentions the Maderia nut or "English" Walnut as a profitable tree. A friend of mine had a tree of these which brought him one season \$25 from the sale of nuts. At this rate an acre of these trees would have yielded \$1,000. This looks like it ought to be profitable, but the fact is that I knew that tree for over twenty years, and that crop of \$25 worth of nuts was the only one it ever yielded. So of a good many of these big stories of profit, if they were sifted and analyzed they would dwindle very much. The men who generally make a success in new crops are not those who rush in headlong and plant half their land in a specialty, but those who feel their way at first and gradually find out what they can do, even if they do have to carry their one crate of red raspberries on their shoulders to the station.

W. F. MASSEY.

A Bird Story.

A few months since, a contributor complained of the birds doing so much damage to his early berries. My paper has been misplaced, but I thought I recognized a highly prized friend, and I want to tell him a little story that came under my notice twenty years ago.

A neighbor had a very fine garden of strawberries, and having some friends in Baltimore, he had learned how to make his garden very profitable.

Well, beside my neighbor's garden, he had a fine lot of trees in his yard, and the robins, possibly with an eye to business, built a great many nests in these trees, and just as the berries began to ripen, the young birds began to chirrup for food, and for a day or two right royally did their proud mothers feed them from neighbor's berries.

But the neighbor was becoming exasperated, and used his shot gun with deadly effect, every time a mother robin alighted in his garden.

The little birds chirruped hopefully for a little while, but soon the heartrending notes of starving, helpless little creatures came, and soon there was silence! My friend gathered his berries in peace. He was a good man, and I wonder if he ever heard those little birds begging for food.

I shall have to pass that same way this evening, and I shall listen for the sound that I have never forgotten.

EASTERN SHOREMAN No. 2.

Berry Notes.

Another season's trial of the novelties in small fruits has left the impression upon my mind that we are making but slow progress towards reaching perfection in any variety as yet; the old standards are still the standbys with but one or two exceptions. To all who would rush into novelties we would say "go slow." There are enough old well-tried sorts to choose from, and there is no need to risk uncertainties. But as it is part of my business to test newer varieties I will give the result of my experience the past season.

Sharpless, Crescent, Wilson, Downing and Kentucky Late, held their own as usual; the only new comers which impressed me favorably were the Manchester and Bidwell. The last named is an early berry, ripening about with the Wilson. It is of good size but very irregular in form; more so than Sharpless. It requires good soil and should be grown in stools, all runners kept off, and mulched in winter, as it appears to be tender. It sets more berries than it can well mature, is of good color and quite firm. The Manchester has come to stay, its great fault is its lateness, coming on just before Kentucky Late. The berries are of large size from first to last, are firm, and of a lively bright color,

will prove an excellent shipper. Owing to its having been insufficiently fertilized by other sorts there was a large number of imperfect berries. Last season there were no imperfect berries among them as they received an abundance of pollen from other kinds near. Being a pistillate variety and blossoming so profusely, I would advise setting at least every third row with some strong staminate sort. It resembles the Cumberland Triumph in appearance, but is a much better berry every way. It is as productive as it is possible for so large a variety to be, approaching the Crescent in this respect. James Vick takes a back seat early in the day, being too small and trifling, except as a curiosity. By the way it starts to making blossoms, and caps, it leads one to expect that the berries will pile up in a little pyramid around and atop of each plant, but when picking time comes they are not there by large majority.

Jersey Queen has but one or two good qualities; blooms after all others have quit and bears plenty of bright but soft berries. It would be a profitable variety to have should late frosts kill all the early blooming sorts.

Finch's Prolific is a very fine large berry of excellent quality, but seems to be a shy bearer.

Big Bob was scarcely visible. It is called "Little Bob" now. Longfellow did well on bottom land, and is a showy productive variety on such soil. Satin Gloss, Duncan, Nunas, and several others are laid aside for good. In the meantime we will wait for the one which is to combine all, or nearly all, the good qualities—it has not reached here yet.

R. S. C.

Harman's, Md.

Pears for Profit.

When swamp land has been thoroughly drained, worked and manured sufficiently to make it pay for market gardening, there is no doubt that dwarf pears will grow freely and thrive for a time on such soil; but it should be constantly kept in mind and practically carried out, that the soil must be kept free from stagnant water and in good heart. It is also necessary that the trees be planted with care and judiciously pruned at the time of planting. If it were a question between upland and well-drained swamp land, the practical pear-grower would always choose the upland situation, other things being equal. There is always more or less danger of getting a late succulent growth of young wood on swamp land that is rich and moist, especially when the soil is fertilized with unfermented manures. Besides, there is something to be feared from late frosts while the trees are in blossom on such low, damp places. But these drawbacks are not formidable enough to prohibit planting pears with fair prospects of profit, provided a good selection of trees and varieties is made.

This brings us to the most important consideration in laying plans for planting a pear orchard—the choice between dwarfs or standards. To treat this question intelligently it will be necessary to refer briefly to the history of pear culture in this country. A quarter of a century ago the opinions which found their way into print on this subject, in nine cases out of ten, emanated from nurserymen, and the exceptions to this rule came from those who took their keynote from the same source. Now every practical man knows that it is much easier and very much cheaper to grow dwarfs in the nursery than it is standards. The uniform and rapid growth of dwarfs in the nursery, putting aside the larger profits, led nurserymen to advocate the planting of dwarfs in preference to standards for orchard purposes, and, as a consequence, dwarf pears were planted extensively in every section of the country, on the recommendation from the sources named.

As a matter of course, time and practical experience were essential elements to test this important question.

I was one of the thousands who were led to plant dwarfs on an extended scale, and now, with an experience of twenty-five years in growing pears for profit, and having during that time an unusual opportunity for observation, both in this country and Europe, I can speak with some authority on this subject. To be brief in summing the case, I will simply state that if I were about to plant a pear orchard now, and could get dwarf trees for nothing, and I was compelled to pay \$500 a thousand for standards, I would not hesitate a moment in making the selection of standards. The tempting theory that dwarfs will bear fruit in a couple of years from the time of planting is a dangerous and bad theory to practice. A pear tree should not be allowed to bear any fruit until it is five or six years in place; and in closing this brief article I will say that one healthy standard pear at twelve years of age is worth a dozen of dwarf trees kept as dwarfs at the same age.—P. T. Quinn, in *N. Y. Tribune*.

New Strawberry Beds.

The gardener who grows but a few strawberries for home use is quite apt to let the bed take care of itself after it has become an established institution. I know of many beds that are from five to ten years old, and the only care bestowed upon them is in pulling or mowing off the weeds that would otherwise bury the vines from sight. The berries are getting smaller and fewer every year, and soon they will be no better than the wild ones in the meadows.

In the first place, a bed should not be allowed to get into such a tangled, matted condition. I know it seems hard to go in and cut out a splendid growth of vines that is trying to occupy the ground space between the rows; but it must be done, and the boundary lines vigorously established and maintained, or the patch will quickly become unmanageable. Let each row have a strip about a foot wide, and then confine the plants to that by cutting out the remaining space between the rows each fall, after the season's growth is over. This leaves a chance for cultivation, and for working in manure about the rows. If the plants become too matted in the row, it is an easy matter to cut out narrow spaces with the hoe or other implement. Beds that are kept cut back in this way need mulching especially. A matted bed, with more or less weeds and grass on the surface of the ground, will furnish pretty much all the mulching needed of itself; but a patch that is kept well trimmed must be mulched, or it will suffer from the frosts and thaws of winter.

But beds will run out with the best of care, and should never be left more than three years, and many good growers advocate but two. If well cared for, I find that they will do as well the third year as the second, and I don't like to move any oftener than is really necessary. If the white grubs get into a patch, plow it up, if it has been in bearing but a year. Where these troublesome pests abound, beds will have to be renewed often, for every year the eggs of the beetle, from which come the grubs, will be deposited afresh. I think, too, that, unless very intelligently managed, a piece of ground will soon become exhausted in those particular properties demanded by the strawberry. Rotation of crops is as necessary here as elsewhere.

It is no great task to set out a bed large enough to supply an ordinary family. The ground should first be made thoroughly rich and mellow; then mark out the rows with a rake marker that will not press the earth down, but push it aside and leave a little furrow in which to set the plants. In setting out, a little care should be exercised in

spreading the roots somewhat before filling in and pressing down the earth. I have noticed many in setting out such plants "chuck" them down in a little bunch, or with the roots all hanging off to one side, just as they happen to come.

Early in the fall is a good time for setting out strawberry plants, provided it is not too dry. Set them out as soon as the weather is moist enough, and they will get a good start before cold weather sets in. Then, if they are well mulched, they will stand the winter in good shape. There is usually more time for such work in the fall than in the spring, and the ground is in better condition to work.

There is no fruit more easily grown than the strawberry. It is just the fruit for those to grow who have only a limited amount of space at their disposal. Every garden, whether on the farm or in the village and town, should have its strawberry bed.—W. D. Boynton, in *American Garden*.

Ripening and Marketing Pears.

As soon as pears have attained their full size, and will part readily from the stem when raised by the hand, they should be gathered. They should be handled as carefully as eggs. In order to ripen them properly, spread one or more blankets in a room from which the light is excluded as much as possible, put the pears thereon and cover them with a blanket or blankets, and in a few days they will be ready for the market or home use.

In packing for market put all except the extra specimens in crates and half-barrels. The extra specimens that are to be disposed of should be put in shallow boxes, after each one is wrapped in fine, white, soft paper. These boxes are usually only deep enough for a single layer of pears. One thing should be taken into consideration, that is, the early varieties mature quicker after they are gathered than the late ones. If the pears are to be shipped to market they should be sorted into extra and first-class lots, leaving the inferior ones for immediate use at home, as there is really no demand whatever for pears of poor quality.—*Cor. Grange Bulletin*

The Grange.

An Address delivered before All Hallow's Grange, No. 14, P. of H., July 26th, 1884.

BY THE REV. D. A. BONNAR, W. CHAPLAIN.

Worthy Master, Brothers and Sisters of the Patrons of Husbandry—

"Some men are born to honors, and some have honors thrust upon them!"—is a trite saying and a true one. Certainly I should not have ventured to seek the honor conferred upon me in the resolution of All Hallow's Grange, which calls me to the duty I shall now attempt to fulfil. I say "attempt," because it is with no small measure of hesitancy that it is undertaken, by one who realizes, only the more deeply as he approaches the doing of it, his ill-fittedness for the task, both as to any inheritance of ability in this particular line, and any preparation for it by practice or training.

I am glad to listen and learn here in our Grange sessions; to listen to the expression of diverse opinions and experiences, to wise suggestions, and practical solutions of often perplexing and difficult problems; to learn lessons that are of far from mere passing value or interest, lessons that go deeper than the plow or spade, and that well applied must bear fruit of more real and lasting benefit than the improvement of a cereal crop, a heavy fleece of wool, or weighty beef or pork. Glad am I to listen and learn, only trusting that sometimes an inquiry growing out of my own ignorance or inquisitiveness may aid in drawing from able teachers a

more particular account of the how, the when, the wherefore, of some method of operation at the time under discussion—this seems to me my natural place.

Why did not the brother who moved in thrusting an honor upon, and demanding the filling of a duty from one so unworthy and so inapt, allow me to remain a learner? I know it would have been better for me; I fear you will think it had been as well for yourselves. Pardon me, then, if in obeying your behests, I fall short of what is worthy of you and the occasion, and of the very broad theme your resolution sets before us.

I am to speak to you of "The Character, Aims and Objects of the Grange Organization, and our work and duty as a part thereof;" and this with special view to those who have lately been received into the Order. A theme, this, too broad for a single address, except as it may be treated in a general way. Let me, therefore, ask your attention to some thoughts, not new by any means to many of us, yet in a degree showing what a Grange may do, and consequently, what our duty is as part of the organization.

THE GRANGE.—To those outside of its membership, and perhaps to some within, it seems merely a society, secret in some degree, with *sighs* and *cries* and *words* and a *ritual* which may all be very "nice," "instructive," or very "funny," according as we look upon them; or should we be bent on finding the best that can be had, we may decree them the least of the means to an end, an end that is noble and great, not in its philosophy only, but in its practical results—the increased welfare of the noblest temporal work that ever occupied the time, demanded the earnest thought, called for the skilled labor and engaged the capital of men, namely, agriculture.

AGRICULTURE.—With no assumption whatever, we may ask where is any individual, corporation or nation without it? Agriculture is a prime factor, the first necessity, and there need be no attempt in this presence, to demonstrate an axiom so plain as this. We say it through no boastfulness, no crying up of our peculiar work or place in the complex mechanism of this world's machinery; no egotism, none in the least, but we would place it *where it belongs*, that those who are engaged in it, that those who watch its operations, that those who must look forward to it as the field of their labor, shall esteem it at its real value.

Now, if the end is noble and great in its attainment, any means that honestly and purely looks to accomplishing that end, in a more perfect way, and to elevating every thing that is connected with its accomplishment, must derive nobility and assume proportions of importance in the measure with which it fills its purpose.

This I take to be the object of the Grange—to elevate agriculture as a pursuit; to ennoble labor expended on the soil; to raise to the level of scientific pursuits a profession that many have been willing to deem contemptible; and by gaining men to look upon the occupation as in itself honorable, lead them to esteem those who strive to excel in it, as the equals, if not superiors, of all other professions.

That this object may be more effectually gained, and that those who devote their time, means and ability to its development may be secured the possession of whatever benefits may be derived, reaping the fruit of their toil, we defend ourselves by the externals, that sometimes seem to be the most marked feature of an organization like this. Yet who does not know that laborers, learning the not less necessary, if less attractive, manipulations of tools and material, may always look up to that higher duty of "cultivators" of the growing crop, which is dependent for its full development upon the thorough performance of the laborer's work; that no "harvester" will reap where unskilled

cultivators till, and "husbandmen" can only hope for garnered fruit and increase from the united efforts and successful operations of those preceding them.

Knowing this inter-dependence, this common interest, here we learn to make each work the best that can be in its place, so that the result may redound to the benefit no less of one than another. Here we learn to plow, how deep, how broad the furrow; and call it clodhoppers' work, if you please, well done or ill, it settles the rest of the story. Here we learn to handle the growing plant; to force, to restrain, to judge of various kinds, adapting them to the peculiar soils, or so regulating their growth that the fullest results may be attained in the mature development, lest labor expended fall short of yielding all it should, or, in attempting to gain great increase, we ruin all.

Here, too, we learn to gather in the fruit of our toil, that the product of no well prepared field, well planted and tended, shall fail at last, through lack of knowledge or skill, to be secured at such time and in such condition as to be most valuable. Here, too, we learn, that he who has, by these means, husbanded his increase has duties in that regard beyond himself, duties above and below, and the receiver is taught to stand before his fellows not as a hoarder of increase, but a dispenser of blessings.

How truly does the husbandman exemplify the proverb: "There is that scattereth, and yet increaseth, and there is that withholdeth more than is meet, but it tendeth to poverty."

How far such an institution as the Grange helps to fulfil the purposes suggested depends, not on the Grange, not on the estimate the world puts on agricultural pursuits, not on the position agriculture occupies in the economy of nations, on none of these; but, on a much simpler, homelier, vastly more matter-of-fact condition—what is it? Only this, *the amount of use we make of it!*

There are men who sneer at the Grange, or who patronizingly shrug their shoulders, and say, "oh yes," when their actions are all "oh no;" there are members of the Order who "never got any good out of it," "don't see any use in it," etc.—who are they? The first cannot learn anything; they know it all; the second are a happy set who are contented to "let well enough alone," and only advance as surrounding movements push them forward; the third are an unhappy lot of beings who estimate all things, first and last, by the returns they individually derive. All of these need the Grange; and they all are consciously or unconsciously benefited by the Grange, wherever there is a fairly worked one in their neighborhood.

The first set find they *don't* know it all; the second that they *must* move on or be left far behind in their own personal interests; the last that no selfishness of wish or work is profitable, but that co-operation in common interests, and intelligent unity of action in matters that are as much for the welfare of the individual as the community, and vice versa, is the surest way to increase the comfort, happiness and wealth of the individual.

Why need I take time, or impose on your good nature, by exemplifying these facts? Look at our own neighborhood—we have these classes of individuals; we have the Grange doing an exceptional work, though by no means all that a Grange could and should do; and we have these good souls reaping no little benefit from the effects of the working of the Grange. Yes, behind the signs and grips and words, which they do not know, or do not care to know, or, knowing once, have from disuse forgotten, these are the *word of progress*, strongly spoken, the power to *grasp* the situation and its needs, and the *signs* of intelligent and beneficent operations, evidencing to all a will and purpose that is not selfish, but on the contrary most thoroughly liberal and public spirited.

It is not amiss to note some of the particular forms in which Granges may operate in their various neighborhoods. First, and naturally so, such matters as pertain to the direct work upon the farm; the methods, the crops, the cattle, the best when and how, to plant, till and gather in; machinery and tools; labor in all its aspects; wages, and all that goes in our mode of paying wages, to make up the return to the laborer for his toil. Whatever can be of interest upon the farm in the work of the farm, is the great matter that we have to deal with.

But this is not all; what profit of the crop be of the best, tillage most skillful, machinery perfect in adaptation to its purpose; what if cattle be of most superior breed, wool of unsurpassed quality, butter the sweetest, and honey fit for a king's table, if all the increase over cost of raising or making are consumed in getting to market and a customer?

Secondarily then, a Grange has no small interest in the subject of whatever influences the sale of the farm's products, and we may begin at the farmer's door. ROADS! brothers and sisters of All Hallow's Grange, ROADS! Are you sick of the subject, tired of the word, surfeited with ideas, suggestions, advice? Perhaps so; and yet, so far as we are personally concerned, here is the highway to success or the road to ruin. Let us get rid of the occasion of sickness, let us put our highways in such order that we will not be weary as we travel them, nor "cry enough!" until there is, not the promise, but actual possession of permanent improvement. One way this may be attained is by our common counsel presented, with all the force and persistency we are capable of giving, to those in authority, till we influence them to spare no effort, expense, or pains to make us secure in our *rights*.

Has your speaker a mania on the subject? it may be. He would ask any one living in this vicinity to begin when wheat goes to market, and keep a full account of what it really costs to get his hauling done—wheat, coal, corn, tobacco, and see what actual expense he is to on account of roads; then, *he* too may be possessed with a mania for highways, as against what one might call surface drains.

Another practical point is reached when we come to the confines of our own neighborhood, that is, transportation. Water is our only way, schooner or steamboat. Here we strike monopoly, and it behoves us to consider methods of self protection, so that we may not be at the mercy of any one institution. The carrying may be a necessity—is, but the vessel may be a choice; the steamboat is just as much a necessity to us as we are to the steamboat, and there must be regard for the maxim "live and let live." A little quiet self assertion works wonders sometimes with corporations that control or aim to control the carrying power. United intelligent assertion wins its way.

MARKETS.—But what can one say in the face of the very powerful, though seemingly iniquitous combinations, represented not here only, but all over our land, by the dealers in wheat and corn; combinations that prevent your grain being sold except through a given channel; prevent your purchasing your manufactured grain except at a price that seems what you receive for it in the first instance, plus the cost of putting it on the market, a fee to the seller, an advance to the first buyer, a charge for the manufacture, a profit to the dealer in the manufactured article and the cost of transportation to your home? Why may you not send your wheat to the mill and get your flour, paying the miller for his labor a decent price, if you choose to? No, it *must* go to the elevator, be sold through the exchange; the commission merchant must attend to the business in selling wheat and buying flour, and the

farmer supports the whole concern on one of the necessities of life.

A simple illustration, which is not far wrong, may be found in such an estimate as the following:—

4 bus. wheat, 240 lbs., at \$1.00 a bus... \$4.00
A barrel, (say) 15
1 bbl. flour, 196 lbs..... \$7.75

Bran, etc., 44 lbs..... .33
..... \$8.08
Balance for expenses and profits..... \$3.93

The farmer gets for
4 bus. wheat, at \$1.00 a bus..... \$4.00

Pays freight to market..... 10 cts.

Pays comm. mer. for selling..... 18 cts.

Pays freight on flour home..... 25 cts.
..... 53 cts.

Real income from wheat..... \$3.47

Pays to convert wheat into flour }
in his store-room at \$7.75 a bbl... } \$4.28
In other words it takes more than eight bus.
of wheat to make a barrel of flour.

These and like difficulties are best met, so far as they can be met, by dealing with our own agent, where nothing is paid save necessary expenses.

(Conclusion in next Number.)

MONTGOMERY COUNTY GRANGE, NO. 7.—

The regular quarterly meeting was held at Olney on 31st July. Most of the morning session was occupied with a very interesting discussion of our public schools, and the system of instruction that should be adopted. Mr. A. B. Davis, president of school board, states that all the teachers and bills of every kind had been paid to 1st July; but, that only one half the children in the county attend the schools, though one-fifth of taxes are given for their support. Action was taken to arouse parents and guardians to a sense of their responsibility in this respect.

A good deal of enthusiasm was manifested over the new board of management of County Agricultural Society, which is trying to revive interest in the society and pay off its debts. A resolution was adopted endorsing the present management, and pledging the members to do all in their power to make the County Fair a success.

Reports were made of an epidemic among swine in the western part of this county, and a request was sent to the Governor that the State Veterinary Surgeon go immediately to Darnestown to examine and prescribe for disease.

In Memoriam.

HALL CENTENNIAL GRANGE,

August 7th, 1884.

At a meeting of Centennial Grange, held on the above date, the Worthy Master announced in a short but feeling manner the loss the Grange had sustained in the death of sister Shanklin. A committee was appointed to draft suitable resolutions, who reported the following:

WHEREAS, It has been the will of Almighty God to remove from our midst sister A. Eliza Shanklin, wife of brother Arthur W. Shanklin.

Resolved, That while we bow in humble submission to the decrees of an all-wise Providence, it is proper that we as members of Centennial Grange, Patrons of Husbandry, express our heartfelt sorrow at the loss which we have sustained.

Resolved, That while we tender the bereaved husband and family our condolence in this formal manner we intend it as no meaningless form, but a sincere expression of the feelings of those who are still left to toil in the field of life, when one whom they love and honor has been snatched away by death.

Resolved, That the charter of this Grange be draped in mourning in memory of deceased.

Resolved, That a copy of these resolutions be sent by our Secretary to the family of deceased, to the county papers, THE AMERICAN FARMER, and spread upon the minutes of this Grange.

ANNE W. STEVENSON,
ANNIE E. TALBOTT,
CLARA W. HEILIG,
W. F. MASSEY,
Committee.

Home Department.

A Visit to Mt. Vernon.

(Concluded.)

In a small room on the left of the hall, marked "Mrs. Washington's Sitting Room," Washington wrote an account of the battle of Monongahela to his brother, the only reliable one we have of that engagement. After the battle the Indian chiefs had an interview with the General under the four old trees of which we have spoken.

At that time an Indian warrior told how many times he had fired at the American patriot, and always missing aim.

In this room, also, was penned the farewell address to his countrymen. The room in which Washington died is preserved as far as possible intact, the plain old-fashioned four posted bed with hangings stands in its place, and in a small room or closet adjoining are camp equipages, medicine chest, etc. An empty trunk is on the floor near the fireplace, but the journeyings of the patriot and hero are ended.

In an attic room, the plainest in the house, with dormer window and slanting roof, Mrs. Washington died, just eighteen months after her illustrious husband.

The reason given for her choice of this apartment was, that from it only she could see the first vault in which Washington was laid.

One contrasts the manly devotion of the American hero and its appreciation with the heartless conduct of Napoleon to Josephine.

But the two men should not be named together. We can hardly repress an expression of disgust on being told that the weeping willows in the ravine which extends from the landing along the path to Washington's tomb came from Napoleon's grave.

It is well to take our children to a place like this, and as they stand with uncovered heads before the remains of departed worth, impress on them the lessons which such a life teaches, with the distinction between great abilities and purely selfish personal ambition, and self sacrifice and devotion to principle and country.

It has been somewhat difficult to get to Mt. Vernon, involving a journey to Washington, and the "looking up" a boat from thence. But the weekly excursions, on the Baltimore and Ohio, involve no such delay. After a charming ride of forty miles past the Relay, with its exquisitely kept foliage and flower beds, the cars stop within a few feet of the "Mary Washington," which, after a sail of seventeen miles on the Potomac, lands passengers at the little wharf which is but a few hundred yards from the vault itself.

Several hours may be spent on the grounds, and the visitor finds himself in Baltimore at tea time. A chamber in the crypt under the Capitol was prepared for Washington's body, and efforts have twice been made to gain the consent of the owners of Mt. Vernon to its removal. This was refused, and in the first instance by Mrs. Washington. In his will the General directed that a new vault of brick should be built, and his remains placed in it. It was not done, however, until thirty years later, when an entrance had been forced into the vault, which is low and oven-like, and a skull stolen. In the sealed vault in the rear of the present enclosure rest the remains of some thirty of Washington's relatives. The key of the vault was then thrown into the Potomac.

Mrs. J. B. MOORE BRISTON.

The American Farmer

"O PONTEUMUS MIMUM SUA SI BONA NOVENT
"AGRICOLAS." Virg.

PUBLISHED ON THE 1ST AND 15TH OF

EVERY MONTH,

By SAMUEL SANDS AND SON,

At No. 128 West Baltimore Street,

(Sign of the Golden Plow,)

BALTIMORE, MD.

WILLIAM B. SANDS, Proprietor.

SAMUEL SANDS, } Editors and Publishers.

W.M. B. SANDS, } Richmond, Va., Office, 612 W. Main St.

SUBSCRIPTION:
\$1.50 a year, in advance. Clubs of five or more will be supplied at \$1 each.

ADVERTISING RATES:

| | 1 Time. | 1 Mo. | 2 Mo. | 3 Mo. | 6 Mo. | 12 Mo. |
|----------|---------|--------|--------|--------|--------|---------|
| 1 Inch | \$1.25 | \$2.25 | \$4.00 | \$5.50 | \$9.00 | \$15.00 |
| 12 lines | | | | | | |

Liberal reductions will be made on larger advertisements. Advertisements to remain on outside page subject to special contract. Transient Advertisements payable in advance—all others quarterly. Advertisements should reach us by the 12th and 27th of the month, to secure insertion in the succeeding issue.

* Subscribers who have minerals, ores, marls, fertilizing materials, or other substances, will be advised through our pages, by competent chemists, as to their composition, uses and value, by forwarding specimens to this office, *expressage or postage prepaid*. Questions as to application of chemical science to the practical arts will also be answered.

* Persons desiring information or advice on diseases or injuries of domestic animals, will receive replies from a competent veterinary surgeon, by giving a plain statement of the symptoms, etc.

At the office of THE AMERICAN FARMER are located the offices of the following organizations, of each of which its proprietor, Wm. B. Sands, is secretary:

Maryland Horticultural Society.
Maryland Dairymen's Association.
Maryland State Grange, F. of M.
Agricultural Society of Baltimore Co.

BALTIMORE, AUGUST 15, 1884.

Condition of the Crops.

The department of Agriculture report the condition of the cotton crop improved in Virginia, Tennessee, Mississippi, Louisiana and Arkansas. The improvement is especially manifest in Mississippi and Louisiana. In North Carolina and Georgia the average status is unchanged since the July report. In South Carolina, Florida and Alabama, excessive rains have caused a weedy growth and shedding of forms, and prevented cultivation. In Texas, the drought caused a loss of one point and raised serious apprehensions for the future. The plant is late and deficient, as yet, in fruitage. The average of the condition has advanced from 86 to a little above 87. The state averages are: Virginia, 88; North Carolina, 87; South Carolina, 91; Georgia, 90; Florida, 97; Alabama, 92; Mississippi, 89; Louisiana, 85; Texas, 79; Arkansas, 88; Tennessee, 92. Advices since the first of the month indicate an improvement from seasonable rains in Texas. The condition of corn averages the same as in the July report, and higher than in any August since 1880. The averages of the principal states are: New York, 91; Maryland, 94; Virginia, 95; North Carolina, 97; South Carolina, 94; Georgia, 97; Alabama, 99; Mississippi, 90; Louisiana, 78; Texas, 88; Arkansas, 90; Tennessee, 99; Pennsylvania, 90; Kentucky, 91; Ohio, 81; Indiana, 94; Illinois, 92; Iowa, 100; Missouri, 102; Kansas, 101; Nebraska, 100. The report for wheat includes only the spring wheat region. The average is 98 higher than in any year since 1877. The average condition of oats is 94, one point higher than in 1883. The crop has been harvested in the lower latitude, and promises a fine yield in the northern states. Rye averages 97, the same as last month, as harvested and ripened. Barley also maintains its high condition, and buckwheat promises as

full a crop, on an area about the same as last year. Tobacco promises a large crop. The averages are: Massachusetts, 85; Connecticut, 92; Pennsylvania, 82; Maryland, 102; Virginia, 97; North Carolina, 99; Tennessee, 108; Kentucky, 97; Ohio, 94. The prospect is favorable for another large crop of potatoes, not as full as last year, on an area three per cent. smaller. The present indications point to ten per cent. less than 1883.

Received.

PRACTICAL FORESTRY.—A treatise on the propagation, planting and cultivation, with a description and the botanical and popular names of all the indigenous trees of the United States, etc.—By Andrew S. Fuller. Orange Judd Co., N. Y.

This is a handy and timely little volume on a subject that must grow in interest as the years go by. "The importance of not only preserving the forests we now possess, but also the necessity of planting new ones" will be readily acceded to by every thoughtful mind. It calls for the co-operation alike of the individual land-owner, the State, and the general government, and until such time as all three interested become thoroughly alive to their responsibility in the matter no adequate movement looking to the desired end is to be expected. But this book will educate, and those who contemplate tree planting will go all the more intelligently to work after a thorough perusal of it. Those, on the other hand, who have never given the matter a serious thought, may be led to regard tree planting as a duty and privilege after having read the opening chapters, where the influence of forests on climate and various other kindred subjects are discussed in a most sensible and convincing manner.

The directions for raising trees from seed, buds and grafts, as well as their cultivation, transplanting, pruning, etc., are all thoroughly practical and modern in their application, and will well repay perusal even by many whose previous knowledge of such matters has been allowed to rust, to say nothing of those who are as yet but tyros in the business.

By far the larger part of the book is devoted to a descriptive list of our native trees, both deciduous and evergreen, together with many useful remarks concerning their propagation, economic value, etc.; also much information with regard to exotic species.

There are chapters on "The importance of a supply of wood," "Preservation and management of forests," "Establishing new forests," and many others of equal interest. The work as a whole is well arranged and contains all the information that the practical forester really requires.

THE SHORT HORN BULLS offered for sale by Mr. Norris, are well bred animals, and the prices named are low enough to tempt a farmer to buy, for the improvement of herd of natives or grades.

Notes from the Eastern Shore.

A Talbot County Farmer writes us: "My sheep show marked improvement, having averaged 7½ pounds of wool, an increase from a 3 pound average; and I sold the lambs at \$4.75, and the culls at \$8.33, which indicates their condition. Having decided to put a Cotswold cross in them to increase the yield of wool—nothing under 10 pounds will satisfy me—I got a buck lamb from Mr. Legg, of Kent Island, last fall, which gave me 17 pounds of wool and weighed 140 pounds after shearing; I now have him running with fifteen selected ewes, and next year will give him the whole flock."

"The yield of wheat this year has been quite exceptional. I have not threshed yet, though I have hauled my wheat in and put it away, but am quite sure of getting about 30 bushels to the acre from 80 acres of corn ground and stubble fallow, and would have

made a much higher average but had about 16 acres of my poorest land, in which will cut me down.

"The hay this year is only a very moderate crop. I doubt if I have harvested much over a ton to the acre, except with orchard grass; this is, so far as my experience goes, very much the best grass for this section, as it matures before our dry season sets in; I have just put in 8 acres more of it, mixed with clover, timothy and a little blue grass, and the fine rain of the last few days ought to secure me a stand; if it gets hot and dry, I will cover it over entirely with old straw, as I treated some last year with great success.

"All the early fruits have gone, though I have a few cantaloupes still, and plenty of melons, apples and pears; the peaches, by the way, are a complete failure; I can only get a few at a time, and those very indifferent.

"Put in corn this year with a Keystone Drill, 3 ft. 9 in. by 1 ft., and am satisfied I will get a heavy yield for this section, as it is a dark, rich green, well advanced, and more ears to the stalk than I have ever had."

Green Peas in Autumn.

Mr. Watson asks about fall-sown peas in your last number. I have found them rather uncertain, but well worth planting, when one has a vacant spot. Here, we usually try to have peas every month from June 1st to the middle of November, with the exception of the month of September and part of August and October. We now, August 6, have Yorkshire Hero and Blue Imperial in fine condition for the table; these are our sixth crop, beginning June 1st with Carter's Premium Gems, since which time we have had no break in the supply. Last year I sowed in September Carter's Gem and Laxton's Long Pod; the first named did well, but the last came on very slowly and finally most of the pods froze up on the vines. I should use for fall planting the Gems only, making two sowings in September.

I have seen it stated that the late crop of peas will do best if sown in a trench, so as to retain the moisture, the earth being gradually filled in as they advance in growth; this might be worth trying by those who have time for such experiments.

W. F. MASSEY.

Thinning Fruit.

Not one fruit grower in twenty realizes the importance of thinning fruit, and not half of those who do, have the courage to pick off the amount of fruit required to be taken off to secure the best results.

The moment one not thoroughly hardened to the business begins to pick off partially grown fruit, he has doubts as to which specimens are the largest and best, and usually as soon as a specimen is severed from the tree it looks much larger and better than any that are left; so the mind of the orchardist is kept in an unpleasant state while he is engaged in the work of thinning his fruit, until he has had practice enough to become hardened to the business; then he can go into the pear orchard and slash right and left, removing one half, or three fourths of the fruit, and feel that he is doing his duty.

It should be kept in mind that if by picking off one half of the fruit, the other half grows to twice the size, there is not only no loss in measure, but a gain in quality, which will often double its value. There is another advantage of reducing the number of specimens, which is often entirely overlooked; it reduces the draft on the tree, there not being so many seeds to mature, these exhausting the tree to a much greater extent than the flesh that covers the seed.—*Mass. Ploughman.*

WHEAT sold in the Baltimore markets within the past week lower than for many years.

Baltimore Markets—August 15.

Flour.—The market is dull. We quote: Howard Street and Western Super. \$2.57@2.75; do. do. Extra. \$2.00@2.25; do. do. Family. \$4.00@5.00; City Mills Super. \$2.50@3.00; do. Extra. \$2.12@3.75; do. (Bio brands) Extra. \$2.50 Baltimore Winter Wheat Flt. \$2.50; do. High-grade Family. \$2.75; do. 2d-grade Extra. \$2.50; do. Third-grade Extra. \$2.25; Fine. \$2.00@2.25; Rye Flour. \$2.75@4.00; Corn Meal 7 lbs. \$1.00@1.50; Collier's Excelsior Graham. 57.

Wheat.—The inquiry for Southern is less active and the market is quiet and lower. Good to choice cargoes sold at \$6@8 cts. for Fults and \$6@8 cts. for Longberry, and bag lots at \$6@7½ cts. for good to prime and 7½@7½ cts. for common. The market for Western opened fairly active and irregular, but closed more steady at or near the last prices of the day. The closing quotations were at 87½@87½ cts. for spot, 87½@87½ for August, 86@86½ cts. for September, and 86@86½ cts. for October.

Corn.—The market for Southern is dull and lower, with very moderate inquiry. White sold at \$6@6½ cts. for blue-eyed and inferior, and 68 cts. for prime, and yellow at 68 cts. for good and 64½ cts. to grade. For Western the supply and demand are alike limited, and the market is dull and purely nominal in the absence of business.

Cotton.—Buyers and sellers are equally indifferent, and the market is dull and nominal in the absence of recent business. We quote as follows: Middling at 10½ cts., low middling at 10½ cts., and good ordinary at 9¾ cts.

Hay and Straw.—New hay is arriving more freely, and the market is dull and easy for all except prime grades. We quote as follows: New Oscillating Timothy at \$18@19 per ton for choice, and \$16@17 for good to prime. Clover at \$10@12, and Western at \$14@17. Fair to prime old stock is worth \$17@20. Straw is steady at \$8@9 for Wheat, \$11@12 for Oats, \$12@14 for long Rye, and \$11@12 per ton for short do.

Mill Feed.—The market is quiet and about steady with moderate demand. City Mills middlings sells at \$17 7 lbs and Western bran is quoted at \$15.50@16.00 for coarse, and \$19.50@21.00 for firm.

Live Stock.—Beef Cattle.—The market has been fairly active to-day. Prices of Beef Cattle ranged as follows: Best. \$6.24@6.60%; medium or good fair quality. 14@4.57%; ordinary thin Steers, Oxen and Cows, \$3.50@4. Extreme range of prices, \$3.50@5.62%. Most of the sales were from \$4.35@5.87% per 100 lbs.

Butter.—Under an active inquiry for choice stock, the market is quite firm, with moderate offering. Common grades are dull and neglected. We quote choice New York State at 20@22 cts.; fresh western packed choice at 15@16 cts.; do. good to prime at 12@14 cts., and near-by receipts at 13@15 cts. &c. &c.

Pure Dissolved S. C. Bone.**Bone Meal.****Ammoniated Dissolved Bone.****Pure Dissolved Bone.****POWELL'S TIP TOP FERTILIZER.****POWELL'S POTATO PRODUCER.****Powell's Bone and Potash Fertilizer**

Everything connected with Fertilizer business of best quality. For Sale Cheap. Send for Pamphlet and Samples.

BROWN CHEMICAL CO.

16 LIGHT STREET,
BALTIMORE, MD.

EVERY MAN HIS OWN MILLER.**ECLIPSE POWER WIND MILLS,**

ADAPTED FOR

GRINDING FEED AND MEAL, SHELLING CORN, CUTTING FEED AND FODDER, SAWING WOOD, CHURNING, PUMPING WATER.

BUILT IN 10 SIZES, FROM 13 TO 50 FEET WHEELS.

SEND FOR SPECIAL CATALOGUE.

We have a 14 ft. wheel erected at our warehouse, and invite all interested to call and examine it. We also carry in stock IRON FEED GRINDERS for grinding corn, and other grain, corn on cobs, bones, drugs, spiccs, coffee, etc. Arranged to run by horse, wind or steam power.

FROST-PROOF STOCK TANKS. ROUND RESERVOIR TANKS.
Hand, Wind Mill and Steam Pumps, Pipe and Fittings, etc.

SEE US BEFORE BUYING ELSEWHERE.

GOOD AGENTS WANTED.

Water Works of every description.
MALVIN B. SHURTZ & CO.
19, 21 and 23 E. Pratt Street, Cor. President, Baltimore, Md.

**FAY'S CELEBRATED
WATER-PROOF
MANILLA ROOFING**
Resembles fine leather; for Roofs, Outside Walls, and Inside in place of plaster. Very strong and durable. Catalogue with testimonials and samples FREE. Established 1852.
W. H. FAY & CO., Camden, N. J.

\$1000 REWARD
For any mounted bullion and clothing \$1000
will be paid for the same. The first \$1000
will be paid for the first \$1000.
VICTOR
GENERATED
Pump and Pump
NEWARK MACHINE CO.
NEWARK, N. J.

FOR SALE.
TWO SHORTHORN BULLS.
RUPERT.—Red, calved June 20, 1852; bred by S. S. Bradford, Esq., Culpepper, Va. By Earl of Bellevue; & straight Bates Rose of Sharon, [sired by Earl of Wexford, 1855, S. H. R.] 14175 A. S. H. H. B. Dam Elvina 8th, 4117 Plantagenet 8705. Second dam Elvina 3rd, 1906; 11th Duke of Thorndale, 5611. Thirteenth Dam Elvina, 812. Duke of Geneva (1864). Dam Red Rose 8th, by Taurus 6236. Price \$150.

MARY'S KIRKLEVINGTON PRINCE.—Red and white; calved January 15th, 1852. Bred by E. B. Emory, Centreville, Md., by Kirklevington Lad 3622. Dam Sharon Belle 3rd 6167. Belle Sharon 2nd 8708. Price \$150.

AND ONE BULL CALF, ROAN, BREED BY ME. Calved March 6th, 1852, by Kirklevington Lad 3622. Dam Catherine Princess by Emory's Roan Duke 3627. Price \$50.

Tanis Mills, Md.

OWEN NORRIS.

FOR SALE.
FARM AND DUCKING SHORE.

On Middle River, twelve miles from city, and about 5 miles from Stemmer's run, 30 acres, including 20 acres of good timber—oak, chestnut and maple; improvements fair, soil fertile, water exceptionally good; young orchards of fine fruit. About a mile of shore, and superior fishing and shooting. For further information, apply at THE AMERICAN FARMER OFFICE, 123 West Baltimore Street.

The Hannah More Academy.
THE DIOCESAN SCHOOL FOR GIRLS.

FIFTEEN miles from Baltimore. Noted for healthfulness, thorough instruction, careful training and the refining influences of a Christian home. The next term will begin September 17th.

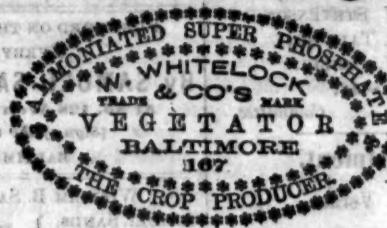
REV. ARTHUR J. RICH, A. M., M. D.,
Roisterstown, Md.

COTSWOLD SHEEP
FOR SALE.

Imported "BARON THAME" of 25½ lbs. fleece. Yearling Rams (pedigreed) 15½ to 17 lbs. fleece; and Ewes of all ages, to be bred next fall.

ED. C. LEGG,
KENT ISLAND, MD.

SEND For description of ATLANTIC
Strawberry, the most valuable grown; and new
Catalogues of BEST SMALL FRUITS. Free
W. F. HARRETT, HARRISONBURG, VA.

"Whitelock's Vegetator"**FOR WHEAT AND GRASS.**

Farmers, if you wish to obtain large yields of the above crops and get the worth of your money, use the best Fertiliser in the market.

"WHITELOCK'S VEGETATOR."

Price, \$36.00 per Ton of 2,000 lbs. New Bags, 167 lbs. Each.

If you desire a lower price manure, which is the cheapest and best for the money, purchase our

"Sunnyside Pure Bone & Dissolved Phosphate."

Price, \$30.00 per Ton of 2,000 Pounds. New Bags, 167 Pounds Each.

To those desiring a Dissolved Bone Phosphate, without Ammonia, the action of which is superior to most articles sold as Acid Phosphate or South Carolina Bone, we offer our

"Soluble Phosphate and Potash Fertilizer."

Price, \$20.00 per Ton of 2,000 Pounds. New Bags, 167 Pounds Each.

The above brands are sold and delivered, 19 bags to the ton, and in fine and dry condition for drilling. EXTRA MOISTURE IN A FERTILIZER ADDS TO THE COST.

You should count the cost of the Fertiliser by the cost per acre. As the soil requires more of a lower grade fertiliser to the acre than one of a higher grade, the consequence is that the extra quantity required, the extra labor in applying it, and the poor results obtained, make the lower grade of goods more costly. With perfect confidence we refer buyers to all who have applied our Fertilisers.

MILLER, LIPPINCOTT & CO.

(SUCCESSORS TO W. WHITELOCK & CO.)

44 SOUTH ST.

BALTIMORE, MD.

TO WHEAT GROWERS!

The undersigned, PIONEER in the manufacture of Fertilizers in this city, and ORIGINATOR in 1858 of the Formulas and processes of manufacture of

"EXCELSIOR" & AMMONIATED PHOSPHATE,

so well and favorably known by the Agricultural public, relying upon his experience and personal reputation hitherto acquired in the uniform excellence of these Fertilizers, as manufactured by him, consent to offer them to the Farmers and Planters of Maryland and Virginia, with the assurance that the high standard quality of each will be maintained as heretofore.



For growing Wheat, it is the universal opinion of the farmers of Maryland and Virginia, after over twenty-six years experience in the use of these FERTILIZERS, that an application of 100 pounds is equal in its effects to 300 pounds of any other Fertiliser or Guano, therefore fully 50 per cent. cheaper.

With my present advantages and superior facilities for manufacturing, I challenge competition with any Fertilizer sold in the United States, in Quality, Mechanical Condition and Price.

By strictly adhering to my Original Formulas, using only the most concentrated materials, and superintending in person their manufacture—so far the past TWENTY-FIVE YEARS.

UNIFORM QUALITY IS GUARANTEED.

Farmers, to secure the ONLY GENUINE EXCELSIOR and PHOSPHATE, should see that every Bag is branded as above, with the ANALYSIS and MY NAME in RED LETTERS.

J. Q. A. HOLLOWAY,
107 MC ELDERY'S WHARF,
BALTIMORE, MD.

Clairmont and Furley Hall Nurseries.

ESTABLISHED 1828. TREES, PLANTS, EVERGREENS, &c.

310 ACRES.

Extensive stock of Apples, Pears, Peaches, Plums, Cherries, Apricots and Damsons. Currants Blackberries, Strawberries, Asparagus Roots, &c. Large and rare assortment of SHrub and ORNAMENTAL Trees, Flowering Shrubs, &c.; embracing many new foreign varieties, recently imported by us. Catalogues and price-list free upon application, also a lithograph of our "Chair's Choice" Peach, which is considered the finest late yellow-fleshed known.

P. O. BOX 408. WILLIAM CORSE & SONS, Baltimore, MD.
Office is Second Street, opposite Post Office.

GRAPES

Parkington,
Buckingham,
Lady Washington,
Virginia,
Monk's Egg,
Jefferson,
Early Victor,
Brighton.

Prentiss

LARGEST STOCK IN AMERICA
Prices reduced. Illustrated Catalogue Free.
T. S. HUBBARD, Fredonia, N. Y.

TEACHERS WANTED—10 PRINCIPALS,
12 Assistants, and a number for Music, Art,
and Specialties. Application form mailed for
postage. SCHOOL SUPPLY BUREAU, Chicago,
Ill. Mention this Journal.

COTSWOLD SHEEP.



Choice Ram and Ewe Lambs by "BISMARCK," sheared last season 18 lbs. 2 oz.,
also yearling Bucks by Imported "EARL OF WARWICK." Address

J. B. GRAY,
Fredericksburg, Va.

RICHMOND COLLEGE, RICHMOND, VA.

The next session begins SEPTEMBER 18TH and con-
tinues nine months.

FACULTY.

EDMUND HARRISON, A. M., Prof. of Latin.
H. H. HARRIS, M. A., LL. D., Prof. of Greek.
A. B. BROWN, D. D., LL. D., Prof. of English.
EWD. B. SMITH, M. A., Prof. of Mathematics.
CHARLES H. WINSTON, M. A., LL. D., Prof. of Physics.
B. PURYEAR, A. M., LL. D., Prof. of Chemistry.
WM. D. THOMAS, M. A., D. D., Prof. of Philosophy.
PROFS. SMITH and HARRIS, Modern Languages.

EXPENSES OF A RESIDENT STUDENT.

Two hundred and four dollars, per nine months' ses-
sion, covers all the expenses of entrance fees,
tuition, board, fuel, lights and washing.

Eighty-seven dollars and fifty cents will meet the
expenses of a non-resident student.

The College grounds, comprising thirteen acres of
land, have been greatly improved and beautified in
the last two years. The institution offers very
superior advantages in the healthfulness of its loca-
tion, in its abundant provision for the comfort and
conveniences of students, and in the extent and
thoroughness of its course of instruction.

For Catalogues, giving full information, apply at
the bookstores, or address

B. PURYEAR,
Chairman of the Faculty.

SALT

Ashton's, Phoenix, Deakin's, Evans', Worth-
ington's full and quarter sacks. Dairy, Rock
Fertilizing Salt, containing 7 per cent. Sul-
phate Potash. Also,

KAINIT,

OR GERMAN POTASH SALT.

Warranted Genuine and Full Standard: also
Calcined Kainit, Muriate Potash, Nitrate
Soda, &c.

Cargoes constantly arriving and all for sale
in lots to suit by

JAS. BONDY, JR. & CO.

55 SOUTH STREET, Baltimore, Md.

Send for one of our Books on use of
Kainit free of cost.

SMALL FRUIT PLANTS VINES, ETC.

At Reasonable Rates.

Jersey Queen, James Vick, Manchester, Bidwell,
Finch's Prolific, and most of the old standard varie-
ties of STRAWBERRIES, RASPBERRIES, GRAPEs, &c.
Send for Price List, also my \$5.00 offer of assort-
ment of each. Am also breeding a choice lot of P.
Rock fowls, trio \$5, Eggs \$1.50 per dozen. Address

R. S. COLE,
Cedar Hill Small Fruit Farm,
HARSHAMS, A. A. Co., Md.

VINES:

LARGEST STOCK IN AMERICA
Prices reduced. Illustrated Catalogue Free.
T. S. HUBBARD, Fredonia, N. Y.

WILSON'S
GREEN SAND MARL

Fertilizer

This article has been thoroughly tested on WHEAT,
CORN and VEGETABLES, and has given very satis-
factory results. IT HAS BEEN ANALYZED BY ONE
OF THE BEST CHEMISTS IN BALTIMORE CITY AND N.
Y., AND PRONOUNCED THE FIRST MARL EVER
DISCOVERED. IT CONTAINS A LARGE PERCENTAGE OF
ANIMAL BONE PHOSPHATE.

Single Bag of 200 lbs. \$1.50. Per Ton
\$12.00.

WAREHOUSE:

162 FRANKLIN STREET,
Between Green and Paca Streets,
BALTIMORE.

OPIUM and WHISKY HABITS cured
at home without pain. Book
of particulars sent free.
R. M. WOOLLEY, M. D., Atlanta, Ga.

Field & Garden Seeds

Our stock of Seeds are new and true to name, embrac-
ing all the valuable varieties, and are from the
most reliable growers only. Thankful for the com-
mendation and increased patronage which have
crowned our efforts to supply the best seed in the
market, we will strive to merit confidence.

FERTILIZERS.

GRIFFITH & TURNER'S ANIMAL BONE
PHOSPHATE. A high grade Phosphate, a com-
plete fertilizer, always gives good results.

GRIFFITH & TURNER'S ALKALINE PLANT
FOOD. Prepared with special adaptation to the
growth of Corn, Potatoes, Tobacco and Vegetables
requiring Fertilizer rich in Potash.

GRIFFITH & TURNER'S RAW BONE.

HARVESTING MACHINERY.

MCCORMICK'S TWINE BINDER.
MCCORMICK'S IMPERIAL REAPER.
MCCORMICK'S DAISY SINGLE REAPER.
MCCORMICK'S IRON MOWER.

HORSE RAKES.

Both Hand and Self-Dump.

Oliver Chilled Plows

run lighter, are more easily adjusted, and do better
work than any other plow.

Malta Shovel Plows. Iron Age Cultivators
Corn Drags. Cane Seed Sowers.
Planet Seed Drill and Cultivator.

Empire Grain Drills. Advance Horse Rake.
The Star Horse Rake. The Victor Horse Rake.
The Hagerstown Horse Rake.

Hay Tedders. FOUNT'S Hay Loader.
American Hay Elevator. Double Harpoon Hay Fork.
Philadelphia Lawn Mowers.

Corn Shellers. Grain Fans.

Farmer's Friend Corn Planters. Cider Mills.

Keystone Corn Drills. Hay Presses.

Hay, Straw and Fodder Cutters. Butter Workers.



Stoddard Churns. Davis Swing Churns.
Fountain Pump. Cucumber Pump.
Patent Galvanized Steel Fence Wire, cheap, durable
and easily put up.

REPAIRING DONE WITH DISPATCH.
SEND FOR CIRCULAR.

GRIFFITH & TURNER.

DEALERS IN

Agricultural Implements, Fer-
tilizers and Seeds,

41 & 43 NORTH PACA STREET,
BALTIMORE, MD.

PUBLIC SALE OF SHORTHORN CATTLE, Southdown & Oxfordshire Down Sheep,

AT WELDON, PULASKI COUNTY, VA.,
AUGUST 27, 1884.

The Shorthorns comprise the well-known and popular families of Young Mary, Illustrous and Josephine. And the Sheep have been bred from best imported blood of the two breeds. Catalogues ready by 15th of August, and sent on application. Address

WM. W. BENTLEY,
Pulaski Station, Pulaski County, Va.

ESTABLISHED 1839.

JOHN BULLOCK & SON,

MANUFACTURERS OF

PURE BONE DUST AND DISSOLVED PURE RAW BONE,

Store, No. 71 SMITH'S WH'F. Factory, WASHINGTON ROAD.

Also Agents for the Sale of

ROSENDALE, ROUND TOP AND PORTLAND CEMENTS.

THE POPPLEIN

SILICATED PHOSPHATE CO.

Manufacture and have constantly in stock the following
Popular Brands of

FERTILIZERS.

THE ACTIVE AMMONIATED BONE,

THE MODEL AMMONIATED BONE,

THE FAVORITE AMMONIATED

SUPER PHOSPHATE.

THE POPPLEIN SILICATED PHOSPHATE,

ALKALINE BONE PHOSPHATE

SOLUBLE BONE PHOSPHATE,

YARRA GUANO.

ALSO PUR. RAW AND DISSOLVED ANIMAL BONE.

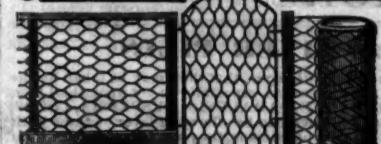
Goods Compounded according to any special Formula desired
on short Notice.

All Goods Guaranteed.

OFFICE: 128 W. Baltimore Street,
(Under "AMERICAN FARMER.")

Factory at Canton, Baltimore County.

SEDGWICK STEEL WIRE FENCE



It is the only general-purpose Wire Fence in use, being

strong, not weak without bars. It will turn
dogs, pigs, sheep and poultry, as well as the most vicious
stock, without injury to either fence or stock. It is just
the fence for farms, gardens, stock ranges, and railroads,
and very neat for lawns, parks, school lots and cemeteries.

Covered with rust-proof paint (or galvanized) it will
last a life time. It is superior to boards or barbed
wire in every respect. We ask for a fair trial, know-

ing it will win itself into favor. The Sedgwick
is made of much heavier wire and steel than
any other fence, and is equal to all competition in neatness, strength, and durability.

We also make the best and cheapest all iron

automatic or self-opening gate, also cheap-

est and neatest all iron fence.

Best Wire Stretcher and Post Auger.

For prices and particular-
ties ask hardware dealers, or address, mentioning paper, SEDGWICK BROS., Manf'r, Richmond, Ind.

SOUTHOWNS.

Yearling and 2-year Rams bred from
importations from Henry Webb and Lord
Walsham, also fifteen breeding Ewes.

FOR SALE BY

SAM. J. SHARPLESS,

705 WALNUT STREET,

PHILADELPHIA.

ROSEBANK NURSERIES

GOVANSTOWN, BALTIMORE COUNTY, MARYLAND.

Ornamental and Fruit Trees, Flowering Shrubs, Herbaceous Plants.

WE invite the attention of the public to our select stock of the following: STANDARD AND DWARF PEARS—2, 3 and 4 years. APPLES—Standard and Dwarf. CHERRIES—Standard and Dwarf. APRICOTS, CRAB APPLES, MULBERRIES, GRAPEVINES, of the most popular kinds, together with other small fruits. Our Collections of EVERGREENS, ORNAMENTAL TREES AND SHRUBS are large, and embrace most of the rarest sorts.

OUR CATALOGUE FORWARDED ON APPLICATION. ORDERS BY MAIL PROMPTLY ATTENDED TO. ALL GOODS DELIVERED IN BALTIMORE FREE OF CHARGE.

W. D. BRACKENRIDGE.

ANDRETH'S * CENTENNIAL * SEED CATALOGUE
"GARDENERS' COMPANION."

PRICE 10 CENTS. The most complete and brilliantly embellished Seed Catalogue ever published, costing fifteen cents. The article on Market Gardening under Glass is worth twenty times the price. This being OUR ONE HUNDREDTH YEAR, we publish this Ornate Guide for Garden and Farm. To all sending us TEN CENTS in stamps, we mail a copy, and on orders for Seed will give credit for that amount. Address LANDRETH & SONS, Seed Growers, Lock Box, Phila., Pa.

LUMBER.

THOMAS MATTHEWS & SON,

88 N. High St. and Cor. Canton Ave. and Albemarle St., Baltimore.

White Pine and Yellow Pine LUMBER, for Building.
Rough and Dressed Lumber.

HARDWOOD FOR WHEELWRIGHTS AND CABINET-MAKERS.
SHINGLES, LATHS, PALES, Etc., AT LOWEST PRICES.



GEORGE O. STEVENS,
WINDOW SASHES, BLINDS & DOORS
49 LIGHT STREET,
BALTIMORE.

KEEPS IN STOCK AND FURNISHES TO ORDER: Window Sashes, Doors, Blinds, Mouldings, Brackets, Hand Railings, Balusters, Newel Posts, Bracket Shelves, Barge Boards, Window Caps, Door Caps, Pews and Church Work, Blinds, Hinges, Builders' Hardware, Wood Mantels, Window Frames, Door Frames, Paints, Oil, Putty, Glass, Lumber, Bricks, Lime, Sash Weights, Sash Cord, Porch Columns, Tree Boxes. Also, ROYAL LIQUID PAINTS, ready for immediate application. Recommended for Durability, Elegance and Economy. Put up in 1/2, 1, 5, 10 and 50 gallon packages. The Best Work at Lowest Prices.

GEO. F. SLOAN & BROTHER.
LUMBER,
DOORS, SASH, BRICKS, &c.
IN LOTS TO SUIT.

132 LIGHT STREET WHARF,
BALTIMORE.

GILPIN'S VEGETABLE LIVER PILLS

A RE prepared, with great care, from medical plants; are coated with sugar, that they may be taken by the smallest child and upon the most delicate stomach; are intended especially to act upon the Liver, thereby relieving all such diseases as COSTIVENESS, HEADACHE, PARALYSIS, DYSPEPSIA, COLDS, JAUNDICE, and all diseases of a bilious origin. No better evidence can be offered in favor of these Pills than the very fact that where their ingredients are known to family physicians, they are using them in their private practice. We append the following from one of our most prominent physicians:

OAKLAND, June 25, 1859.—Dr. Gilpin: After carefully examining the formulae of your Sugar-Coated Pills, I feel it but justice to say that the combination is certainly perfect, and comprises the only remedies I ever believed were the proper ones to be used in diseases of a bilious origin. I shall take pleasure in recommending them, not only to my patients but the entire medical profession. Yours truly, J. M. WISTAR, M. D.

From one of the leading retail druggists of West Virginia:

WESTON, W. Va., June 18, 1859.—Messrs. Canby, Gilpin & Co.—Gents: Please send by express twelve dozen Gilpin's Vegetable Liver Pills. I have the most flattering accounts from all who have used them, and believe the day is not far distant when they will supersede all others. Yours, F. M. CHEALFANT.

We could fill several pages with certificates, etc., from prominent men throughout the country, but prefer to let the Pills in the future, as they have in the past, rest entirely on their own merit, knowing that wherever they are known their use will pass down from generation to generation.

GILPIN'S VEGETABLE LIVER PILLS are sold by all respectable druggists and country store keepers throughout the United States and Canada.

Principal Depot, CANBY, GILPIN & CO., Baltimore.

ESTABLISHED, A. E. WARNER, 1851.
MANUFACTURE OF

SILVERWARE AND RICH JEWELRY

English, Swiss and American WATCHES of the Best Makers,
Importer and Dealer in Diamonds, Fine Watches, Silver-Plated Ware, Table Cutlery, &c.

WEDDING PRESENTS.

Premiums for Agricultural Fairs, Fine Bronzes, Opera Glasses, Shell Jewelry, &c.
All of which is offered at GREATLY REDUCED PRICES.

No. 135 W. BALTIMORE STREET, near Calvert, Balto.



DAIRY GOODS.

We make from the best material Superior Articles of Dairy Goods, that are models of strength and simplicity. Unquestioned proof given of their durability. Sole manufacturers of Curtis' Improved Factory Churn, Mason's Power Butter Worker, Lever Worker, Curtis' Square Box Churn, Rectangular Churn, Cream Vats, Dog Power, etc. "One Family Churn at wholesale where we have no agent." All goods warranted exactly as represented. TWO GOLD AND FOURTEEN SILVER MEDALS awarded for superiority. CORNISH, CURTIS & GREENE, Fort Atkinson, Wis.

EASTERN SHORE NURSERIES,
DENTON, CAROLINE CO., MD.

PRICE LIST WILL BE MAILED FREE TO ALL APPLICANTS.

A very fine stock of APPLE TREES, of such kinds as are suited to the soil and climate of Maryland and Virginia. Peach Trees, Pear, Cherry, Apricot, Quince and Nectarine Trees. A large and superior lot of Wild Goose and other Plum Trees. An immense stock of Grape-Vines, embracing 40 kinds, at very low prices. Shade and Ornamental Trees. In short, a complete assortment of carefully grown nursery stock, at prices as low as a reliable and good article can be grown.

Send for Price List before purchasing elsewhere.

J. W. KERR, Proprietor.

M. G. ELLZEY, M. D.,
1012 I Street N. W., Washington, D. C.

Breeder of Highly Bred Gentleman's Roadsters and Saddle Horses, Shorthorn Cattle, Southdown Sheep direct from Lord Walsingham's Celebrated Flock, and Purely Bred Berkshire Swine.

I am now taking orders for delivery in August for 2 year-old Rams, 10 Yearling Rams, and 10 Ram Lambs.

Correspondence invited. PRICES LOW. Some fine Horses now for sale.

Burnside Park Herd.
PRIZE RECORD.

Sweepstakes Premium for best herd New Jersey State Fair, 1852.

First Premium for best herd New York State Fair, 1853.

First Premium for best herd Maryland State Fair, 1853, besides many other first premiums for single animals in all the Fairs named.

The herd is headed by the Bull BLACK PRINCE OF LINDEN, 2000 lbs. A. J. C. G. H. H. Among the females are the famous cows Princess 24, 8046, 27 lbs. 10 oz. butter in 7 days, (official test); St. Clementina 15168, 15 lbs. 12 oz. in 7 days; Khedive Primrose 2228, Oxford Kate 15046, Saragossa 22019, Queen of the Farm 5009, and many other celebrated animals.

S. M. SHOEMAKER,

Baltimore, Md.

Communications in reference to the herd should be addressed to

O. Ricklefsen, Manager, Stevenson P. O., Md.

FARM WANTED.

Wanted to rent, for a term of years, a small farm on the Eastern Shore, in first-class condition, suitable for market garden purposes. Would prefer a place immediately on salt water and convenient to steamboat landing and railroad station. Talbot County or the Eastern Shore Counties of Va. preferred. Address with full particulars, GARDENER,

AMERICAN FARMER OFFICE,
128 W. Baltimore St., Balt.



12800 Lbs. Wight
OF TWO OHIO IMPROVED CHESTER HOGS. Send for description of this famous breed. Also Fowls, L. B. SILVER, CLEVELAND, O.

Cut This Out
Return to us with TEN
GOLDEN BOX OF HOGS
that will bring you in MONEY, in One Month,
than anything else in America. Absolute Certainty.
No capital. M. Young, 173 Greenwich St., N. Y.

SHOPPING.

Shopping of Every Description

Promptly and Economically Done.

References, Information and Circulars given when desired, Address Mrs. A. M. SNOWDEN, No. 38 BOLTON STREET, Baltimore, Md.

KIEFFER'S HYBRID PEAR

THE PEAR FOR THE SOUTH.

FINE TREES In Condition for Shipping. Send for Price List.

H. S. ANDERSON, Cayuga Lake Nurseries

UNION SPRINGS, N. Y. Established 1856.

WM. FRASER,
(Late Supt. Patterson Park.)

Landscape Gardener & Florist,
277 East Baltimore St., Baltimore.

COUNTRY SEATS Laid Out. GARDENS Planted and Kept. TREES Planted and Pruned. GRADING and SODDING, at lowest rates. PLANS and ESTIMATES furnished. Orders by mail promptly attended to.

Caution to Farmers & Dealers

For Safety in procuring your HARPOON HORSE HAY FORKS, select only those having thereon an imprint of our TRADE MARK, and thereby save infringement fees.

Catalogues giving reliable information furnished free by Mfgs and Proprs.

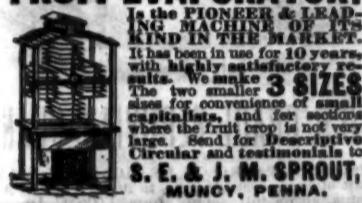
A. J. NELLIS COMPANY, Pittsburgh, Pa.
Also, Mfgs Nellis' Mounted & Floating Harrows, Ag'tl Steels, O'm'l Fencing, Road Graders, etc.

Farm in Baltimore Co. For Sale, Or Exchange for City Property.

Containing 150 acres; about 25 to 30 acres in thriving timber, principally oak and chestnut; well watered and admirably adapted to a dairy or market farm; the soil in kind and susceptible of the highest improvement; it is now principally set in grass. It is at the 15-mile stone on the York turnpike, fronting on both sides of the road, and five stations on the Northern Central R. R.; can be reached at distances of 1 to 3 miles, by good county roads. This is the circle of the members of the Gunpowder Club, and is undoubtedly one of the best locations in the county. Churches of all denominations, and schools, public and private, are convenient. The York turnpike is one of the very best, and the distance from the city permits a round-trip a day for wagoning. Probably no healthier spot in the world can be found. It is laid off in fields of 12 to 15 acres, to most of which easy access is had to water for stock. The dwelling, which is commodious, and large barn, are of stone, with other outbuildings, and though old, can be made very comfortable at a reasonable expense; and there are several admirable sites for residences on the premises. This property could be advantageously divided into small lots and sold at a very great advance on the price asked for the whole. Lots on the road have brought as high as \$800 an acre, and the extent of the frontage on the turnpike, in the hands of an enterprising man, could be turned to excellent account, but the present owner is induced to take the trouble requisite to accomplish this, and would prefer selling the whole together. A gentleman with a very small income independent of the farm, could live on this place without labor, saving the rent of a city residence, by renting the fields on shares to be farmed under his control, reserving a garden and stable, and the pasture necessary for his stock. A small tenant's house on the premises would rent for the amount of taxes on the place. As I cannot occupy the place myself, I am willing to sell it on the most reasonable terms, or exchange it for city property in a good locality. For further particulars apply to the subscriber, at office of American Farmer.

SAM'L SANDS.

THE WILLIAMS FRUIT EVAPORATOR!



Is the PIONEER & LEAD-
ER IN THE MARKET.
It has been in use for 10 years,
with highly satisfactory re-
sults. We make
The two smaller 3 SIZES
sizes for convenience of small
capitalists, and for sections
where the fruit crop is not very
large. Send for Descriptive
Circular and testimonial to
S. E. & J. M. SPROUT,
MUNCY, PENNA.



SCARLET CLOVER SEED. (Trifolium incarnatum.)

100 Bags for Sale. It is as hardy as other Clovers.
Thomas B. Price,
Lawrenceville, Brunswick Co., Va.

TURPINE SEED CROP '83.
Purple Top, Strap Leaf, per pound, 50 cts., post-
paid, to any part of the U. S. By express, 10 lbs. 30
cts. per lb.; 50 lbs. 35 cts.; 50 lbs. 20 cts., with liberal
discount to the trade. Also, White Flat, and all
other approved varieties of Swedes and Rutabagas, at
low prices. Seven Top Turnip Seed for sowing as a
fertilizer, 25 lbs. 20 cts. per lb., 100 lbs. \$15. (As a
fertilizer, three lbs. to the acre will increase the crop
of wheat as much as 200 lbs. phosphate.) Drum-
head and Flat Dutch Cabbage Seed \$1 per pound.
G. B. ROGERS, Seedsman,
No. 141 Market Street, Philadelphia, Pa.

HARD WOOD ASHES AS A FERTILIZER.

150 Car loads for sale. Can be delivered at any railroad station in the Eastern, Middle or Southern States in car loads of 14 tons. Dry un-
leached ashes from 25 cts. to 30 cts. a bushel; leached
ashes from 10 to 15 cts. a bushel, according to
locality. Jas. Hartness, Detroit, Mich.

JOSHUA THOMAS & BRO. STEAM

Agricultural and Mill Machinery

AGRICULTURAL ENGINE

FIRST PREMIUM WHEREVER
EXHIBITED.



Best, Cheapest,
and most
Economical En-
gine in the
Market.

STEVENS' ENGINE AND THRESHER, Osborne Mowers, Reapers & Self-Binders.

Superior Grain and Fertilizer Drills, Chieftain Horse Rakes,
Champion Force Pump, Cucumber-Wood Pumps,
South Bend Chilled Plows, Little Giant Sulky Plows,
Lansing Wheel and Float Harrows, Circular Saw Mills,
Portable Grist Mills, Millstones, Bolting Cloths,
Smut Machines, Leather and Gum Belting, &c., &c.

No. 53 Light St., Baltimore, Md.

THOROUGHBRED Registered Lincoln Sheep

From the celebrated stock of T. Waller & Son, West Chester, Pa., 1 Ram, Duke of Mid., 5 years old; 1 Ewe, Dutches of Mid., same age; 2 Yearling Rams; 2 Lambs of the above; 2 Ewe Lambs do. Address

T. W. Lawford,
506 E. Chase St., Baltimore, Md.

PRATT'S ASTRAL OIL WILL NOT EXPLODE.

Wholesale and Retail.

LAMPS OF EVERY DESCRIPTION.
For Sale by W. & H. SPILCKER,
Agents for Chas. Pratt & Co., New York.

163 Baltimore St.

Imperial Wine Vinegar. NONPAREIL CIDER VINEGAR.

STRICTLY pure and reliable. Many imitations, costing 3 cents a gallon, are sold as Cider Vinegar. To guard against deception, observe that packages bear our brands.

Fresh APOLINARIS WATER.

FREDK. M. BOLLMAN, Importer
53 S. GAY STREET.

G. W. LEHMANN, Ph. D. W. MAGER,
Chemist and Metalurgist. Former Chemist of N. G. Botts, Copper Works.

LEHMANN & MAGER,
CHEMISTS AND ASSAYERS,
57 S. GAY ST., BALTIMORE, MD.

NALYSES of all descriptions—Manures, Soils, A Chemical Fertilizers, Ores of Gold and Silver (by fire process), Copper, Lead, Manganese, etc. Clays, Coal, Luminous and other minerals. Water for steam, manufacturing and household use. Mineral waters and various products of art. Terms moderate.

"THE BEST IS CHEAPEST." ENGINES, THRESHERS SAW-MILLS, Horse Powers Clover Hullers

(Suited to all sections.) Write for **WILLIAMS**, Pamphlet and Prices to The Autman & Taylor Co., Mansfield, Ohio.



STEAM ENGINES

Portable and Agricultural. Send for circulars.

WOOD, TAPER & NOSE,
Eaton, N. Y.

'Singer' Model Sewing
Machine only \$15
including an \$8.00 set of
extra attachments of 9
pieces and needles, oil and
usual outfit of 12 pieces with each.
Guaranteed perfect. War-
anteed 5 years. Handsome,
durable, quiet and light running.
Don't pay \$30 to \$40 for a
handsome machine. You can buy
anywhere on trial before paying. Circulars free.
Standard AMERICAN WATCH CO.,
PITTSBURGH, PA.

DRUNKENNESS CURED IN ITS VARIOUS STAGES.

DR. HAINES' GOLDEN SPECIFIC
positively destroys the appetite for alcoholic
liquors in 20 days, tones the stomach, purifies the
blood, aids digestion, strengthens the nerves. Can
be administered without the knowledge of the
patient by simply placing it in tea, coffee, or
articles of food. It never fails. Cures guaranteed.
For further information, address

GOLDEN SPECIFIC COMPANY,
185 Race Street, Cincinnati, Ohio.

ALL GARDEN SUPPLIES.

ROB'T J. HALLIDAY,

238 W. BALTIMORE STREET,

BALTIMORE, MD.

My Catalogue for 1864 now ready and mailed free to all applicants. It contains all the new and popular plants for the Garden and Greenhouse; also Vegetable and Flower Seeds, and all garden requisites.

PENNSYLVANIA ROUTE.

FORMED by the Northern Central and Pennsylvania Railroads on the West, Northwest and South.

west to PITTSBURG, CINCINNATI,

LOUISVILLE, INDIANAPOLIS,

CHICAGO, ST. LOUIS, and

OTHER PROMINENT POINTS.

Baltimore and Potowmack, and Alexandria and Fredericksburg Railways on the South to

WASHINGTON, RICHMOND,

and all points in the

ATLANTIC AND GULF STATES.

The Only All Rail Line with no One

Transfer at Washington.

Northern Central, and Philadelphia and Erie Rail-

ways on the North to

HARRISBURG, WILLIAMSPORT,

ELMIRA, WATKINS GLENNE

ROCHESTER, ERIE,

BUFFALO, NIAGARA FALLS.

No Baggage called for and checked at hotels and

private residences through to destination. Sleeping

and Parlor Car accommodations secured.

Through Tickets sold and information given at

Company's office,

N. E. Cor. Baltimore and Calvert Sta.

At Depot N. C. Railway,

At Union Depot, Charles St., Station,

And Pennsylvania Ave. Station,

CHAR. E. PUGH,

J. H. WOOD,

Gen'l Passengers Agt.

Penna. & N. C. R. R.

DEDERICK'S HAY PRESSES.

The customer

keeping the one

that suits best.



Order on trial, address for circular and location of

Western and Southern Storehouses and Agents.

P. K. DEADERICK & CO., Albany, N. Y.

No Farmer can afford to be without it.

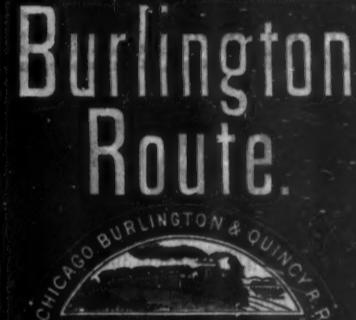
It will SAVE its cost many times.

BEST IN THE WORLD! Send

for Descriptive Catalogue, Free.

Monroe Mfg. Co., Kennett Square, Chester Co., Pa.

THE LINE SELECTED BY THE U. S. GOV'T
TO CARRY THE FAST MAIL



Burlington Route.

CHICAGO BURLINGTON & QUINCY R.R.

GOING WEST.

ONLY LINE RUNNING TWO THROUGH

TRAINS DAILY FROM

CHICAGO, PEORIA & ST. LOUIS,

Through the Heart of the Continent by way

of Pacific Junction or Omaha to

DENVER,

or via Kansas City and Atchison to Denver, con-

necting in Union Depots at Kansas City, Atchison,

Omaha and Denver with through trains for

SAN FRANCISCO,

and all points in the Far West. Shortest Line to

KANSAS CITY,

And all points in the South-West.

TOURISTS AND HEALTH-SEEKERS

Should not forget the fact that Round Trip tickets at

reduced rates can be purchased via this Great

Through Line, to all the Health and Pleasure

Resorts of the West and South-West, including

the Mountains of COLORADO, the Valley of the

Yosemite, the

CITY OF MEXICO,

and all points in the Mexican Republic.

HOME-SEEKERS

Should also remember that this line leads direct to

the heart of the Government and Railroad Lands in

Nebraska, Kansas, Texas, Colorado and Wash-
ington Territory.

It is known as the great THROUGH CAR LINE

of America, and is universally admitted to be the

Finest Equipped Railroad in the World for

all classes of Travel.

Through Tickets via this line for sale at all Rail-

road Coupon Ticket Offices in the United States and

Canada.

T. J. POTTER, Vice-Pres. and Gen. Manager.

PERCEVAL LOWELL, Gen. Pass. Agt. Chicago.

JNO. Q. A. BRAN, Gen. Eastern Agt.

117 Broadway, New York, and

336 Washington St., Boston.

PENSIONS for any disability

also to disabled. Send

stamps for New

Law. Col. L. BINGHAM, Attorney, Washington,
D. C.

"FLOATS" OR PHOSPHATE DUST.

FLOUR OF SOUTH CAROLINA PHOSPHATE.

Contains from 55 to 60 per cent. Phosphate Lime, ground to an impalpable powder in the Disc Atomizer, which grinds much finer than by any other process known. We are the only establishment in this section using these machines.

Also Ammoniated Super Phosphate, Songton's Cereal and Plant Food, Alkaline Bone Super Phosphate, Tornado Fertilizer, Linden Super Phosphate.

We have on hand for sale:

Fine Ground Raw (Animal) Bone. Dissolved Raw (Animal) Bone.
Muriate of Potash. Kalinit.

The Maryland Fertilizing and Manufacturing Co.,
No. 4 S. Holliday Street, Baltimore, Md.

FOR SALE.

FIFTY Southdown Ewes Lambs and a few Bucks, Price \$10 a piece.

FRANCIS MORRIS,
Oakland Mills, Howard Co., Md.

TRADE-MARKS, PATENTS, COPY-RIGHTS, DESIGNS, PRINTS, LABELS. Small description of your Invention. L. BINGHAM, Patent Lawyer and Solicitor Washington, D. C.

University of the State of New York.
AMERICAN VETERINARY COLLEGE,
141 West 84th Street, New York City.
The Regular Course of Lectures commences in October each year. Circular and information can be had on application to A. LIAUTARD, M. D. V. S., Dean of the Faculty.

W. H. Martenet, D. V. S.,
GRADUATE OF THE
AMERICAN VETERINARY
COLLEGE.
OFFICES: Alsop & Monument Sts.,
152 Saratoga Streets; Residence, Monroe St., East of Gay, Baltimore, Md.
Telephones at Residences.

KNABE
PIANOFORTES.
UNEQUALLED IN
Tone, Touch, Workmanship and Durability.
WILLIAM KNABE & CO.
Nos. 204 and 206 West Baltimore Street,
Baltimore. No. 112 Fifth Avenue, N. Y.

Virginia Lands.
Upper James Real Estate Agency,
By WILLIAM HOLMAN,
CAVETTEVILLE, Va.
WHO offers for sale upwards of 12,000 acres of land
lying in one of the most desirable regions of
Eastern Virginia. Catalogues sent on application.

WM. STUART SYMINGTON.

Symington Bros. & Co.,
Office, N. W. Cor. Holliday St. & Exchange Place. Works, Locust Point, Baltimore

Manufacturers of the

ORIOLE FERTILIZERS,

Each grade of these fertilizers is made under a different and distinct formula, and each contains what is most needed by the particular soil for which it is intended. We guarantee our goods exactly as represented.

SYMINGTON BROS. & CO., Manufacturing Chemists.

SLINGLUFF & CO.

OFFICE, 157 W. Fayette St. BALTIMORE. { Foot Leadenhall St.
Manufacturers and Manipulators of

PHOSPHATES.

We are now offering to the trade the following WELL-KNOWN BRANDS OF GOODS, which we guarantee fully up to the standard:

SLINGLUFF'S DISSOLVED GROUND BONE,

Containing 5 per cent. of Ammonia.

SLINGLUFF'S DISSOLVED SOUTH AMERICAN BONE ASH,

Containing 40 to 44 per cent. Soluble Bone Phosphate.

SLINGLUFF'S DISSOLVED SOUTH CAROLINA PHOSPHATE,

Containing 30 to 33 per cent. Soluble Bone Phosphate.

SLINGLUFF'S NATIVE SUPER-PHOSPHATE,

Prepared entirely from Animal Bone, highly ammoniated. Also,

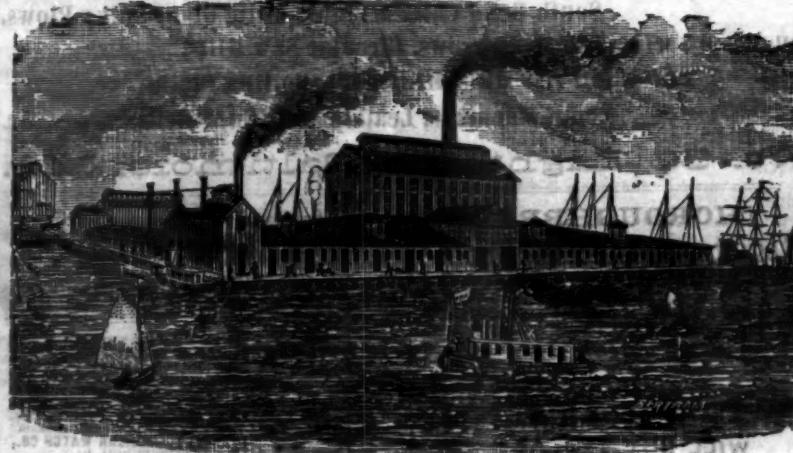
SLINGLUFF'S NO. 1 AMMONIATED SUPER-PHOSPHATE.

This we can confidently recommend as one of the best fertilizers sold in the market at the price.

The Rasin Fertilizer Company,

PROPRIETORS OF THE

"SEA-WALL GUANO WORKS."



SITUATED ON THE PATAPSCO RIVER, AT SEAWALL AND ARUNDEL CO.

The most extensive and permanent WORKS in the United States, and the whole under the direct supervision of Mr. R. W. L. RASIN, the General Manager of the Company, whose thorough knowledge and experience is a guarantee of the quality of their FERTILIZERS.

Large Stocks on hand and ready for delivery. Your orders solicited.

The Rasin Fertilizer Company,

20 & 22 South Street, Baltimore.

Peruvian Guano.



HIGH GRADE PERUVIAN GUANO

Direct from PABELLON DE PICA, the richest deposit of Peru, containing 8% to 10 per cent. of Ammonia, also a full supply from LOBO'S deposits, containing 5% to 6 per cent. of Ammonia, which I offer for sale direct from Guano storehouses, Waters' Wharf.

J. Q. A. HOLLOWAY,
107 McElroy's Wharf,
BALTIMORE, MD.

FOUTZ'S HORSE AND CATTLE POWDERS



No HORSE will die of Colic, Borts or Lung Fever, if Foutz's Powders are used in time.
Foutz's Powders will cure and prevent Hog Cholera.
Foutz's Powders will increase the quantity of milk and cream twenty per cent., and make the butter firm and sweet.
Foutz's Powders will cure or prevent almost every Disease to which Horses and Cattle are subject.
Foutz's Powders will give Satisfaction.
Sold everywhere.

DAVID E. FOUTZ, Proprietor,
BALTIMORE, MD.

THOS. A. SYMINGTON.

R. J. BAKER.

ESTABLISHED 1837.

B. J. HOLLINGSWORTH

HIGH GRADE FERTILIZERS.

SULPHATE OF AMMONIA.

PURE NITRATE SODA.

R. J. BAKER & CO.

MANUFACTURERS AND DEALERS IN

CHEMICALS.

Ammoniated Super-Phosphate for all Crops. Pure Dissolved Raw Bone. Pure Fine Ground Raw Bone. Stag Super-Phosphate of Lime for Tobacco.

HIGH GRADE IMPORTED BIRD GUANO \$25 PER TON.

BIRD GUANO AND POTASH FOR CORN \$25 PER TON.

FACTORY AT LOCUST POINT.

Office, 36 & 38 S. Charles St., Baltimore, Md.

ENTERED AT POST OFFICE, BALTIMORE, AS SECOND-CLASS MATTER.